investment in
INDONESIA

basic information
for United States businessmen

U. S. DEPARTMENT OF COMMERCE

DEPARTMENT OF COMMERCE
UNITED STATES OF AMERICA

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U. S. DEPARTMENT OF COMMERCE Sinclair Weeks, Secretary
BUREAU OF FOREIGN COMMERCE Loring K. Macy, Director

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Foreword

This handbook, designed primarily to serve the needs of potential investors, is one in a series issued by the U. S. Department of Commerce. Since it brings together in a single publication basic economic and commercial information on Indonesia, exporters and importers also will find it a helpful document.

The Republic of Indonesia, a nation which achieved its independence only recently, is endeavoring to further its economic development and raise the standard of living of its people. It has started on this long road but is still feeling its way. It has not yet firmly decided how much private foreign investment it needs or wants in this struggle for economic betterment. Nevertheless, there is recognition of the role which foreign private capital can play in furthering economic development. There is also interest on the part of American businessmen in knowing more about the situation in Indonesia.

This volume discusses economic, social, and political factors which American businessmen will find useful in evaluating Indonesia as a field for investment and trade. It is recognized that questions may arise in the minds of potential investors which could not be anticipated or, for lack of space, could not be fully covered. The U. S. Department of Commerce invites requests for additional information and assistance. Such inquiries should be addressed to any Field Office of the Department or to the Far Eastern Division, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D. C.

It is planned to keep the basic information contained in this handbook up to date through our *World Trade Information Service,* issued in four parts, which should be consulted for subsequent information on economic, administrative, and legal developments affecting private foreign investment. Current developments are reported in *Foreign Commerce Weekly.* Both *Foreign Commerce Weekly* and *World Trade Information Service* reports may be purchased from any Field Office of the Department of Commerce or from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

The information furnished in this handbook is not intended to serve in lieu of the legal, financial, or business surveys which businessmen customarily make before investing abroad.

This study was prepared by Ada V. Espenshade, Chief of the Philippines-Southeast Asia Section, under the supervision of Eugene M. Braderman, Director of the Far Eastern Division, Bureau of Foreign Commerce. Many individuals contributed in varying degrees to its preparation. Particular note should be made of the assistance given by John E. Walsh of the Far Eastern Division. In addition, we acknowledge our appreciation of the cooperation received from American and Indonesian businessmen, officials of the Indonesian Government, the United States Foreign Service, and the International Cooperation Administration Mission in Djakarta.

Every effort was made to include the most current information available at the time this handbook went to press. The cutoff date for most of the material was late 1955, but every attempt has been made to include important changes through January 1956.

H. C. McClellan
Assistant Secretary for International Affairs
U. S. Department of Commerce

February 1956.

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The Investment Situation

The Republic of Indonesia is the largest nation of Southeast Asia and the sixth most populous country of the world. It is made up of an island chain which stretches some 2,800 miles along the Equator. With a population of 82 million and varied natural resources, its potential for development is indeed great.

Politically, Indonesia is young, with sovereignty dating only from the end of 1949. Before World War II it was the Netherlands Indies (commonly known as the Dutch East Indies), a colonial area for more than 300 years. During the war it was occupied by the Japanese and later its struggle for independence took the form of a revolution. Civil strife continued after independence and even now some parts of the country are disturbed by dissident groups, but these activities have been confined.

The new nation inherited difficult economic and social problems; political independence did not lessen these problems but added new ones. Overpopulation was serious in Java although other areas were underpopulated. Estate and farm operations were impaired during the wartime occupation and the subsequent internal strife. Transportation and communication facilities and some industrial plants were damaged. Like other raw-material-producing areas the economy had a boom-and-bust cycle. Moreover, Indonesia started with large financial obligations to the Netherlands.

The general living standard of Indonesia's people was low. More than 90 percent were illiterate and very few had received advanced training. The shortage of trained Indonesians—engineers, Government administrators, agronomists, electricians, statisticians, businessmen, teachers—was felt throughout the economy. Thus, the newly formed Republic was saddled with great handicaps. Furthermore, the prevalent distrust of the Dutch—their former colonizers—prevented the new nation from fully utilizing the trained personnel most familiar with the economy.

The war in Korea, with its mounting demand and high prices for rubber, tin, copra, and other Indonesian exports, gave an impetus to the 1950–51 postindependence economy. This tended to obscure some of the economic problems temporarily. As the boom waned, however, a serious balance-of-payments situation developed, making it necessary to cut back imports sharply. Large budgetary deficits, financed by borrowing from the central bank, aggravated the inflationary trends. These new financial difficulties were added to the problems of rehabilitation and the low living standards of the people.

In spite of great difficulties, the years since independence have witnessed progress in certain aspects of the Indonesian economy. Particularly noteworthy has been the expansion of food production, especially rice. Substantial progress has also been made in rehabilitating transportation and communications. A start has been made in expanding mining and industry although important segments continue to lag. Indonesia has consistently paid its heavy financial obligations abroad, thus establishing an excellent national credit position. Perhaps the most important achievements are the increases in literacy and the start toward training technical personnel. Although a majority of the people are still illiterate and technical and administrative training still a serious deficiency, Indonesians want to become better trained and education has made great strides.

The desire of the people for higher living standards, coupled with a strong resource base, offers opportunity for future development provided the leaders are successful in adopting social, economic, and political measures conducive to progress. The country's leaders want to: (1) Diversify the economy and export semimanufactured and manufactured goods as well as raw materials; (2) develop industries in order not to rely so exclusively on imports; and (3) encourage Indonesians to engage in foreign trade, domestic commerce, and manufacturing.

In this task of economic development, Indonesia faces several special problems. Important among them is the newness of the unitary state, which must govern not a single integrated economy but one composed of many local rural units in which the farmers raise their own crops and have little contact outside the nearest village. These units are scattered over many islands imperfectly linked by transportation. This self-sufficient rural Indonesia is in sharp distinction to the estate and urban economies which are closely tied to foreign capital and world markets.

Viewed by Western eyes, it appears clear that economic development would be stimulated considerably if Indonesia could attract foreign investment. Such investment would not only provide additional amounts of capital but would also bring with it the advanced techniques and managerial know-how which Indonesia lacks. Furthermore, it could add to the foreign exchange earnings or reduce foreign exchange expenditures.

In the postwar period to date, however, foreign capital has generally been reluctant to invest in Indonesia. Except for new investment by a few of the companies already established there in prewar years, the amount of outside private capital which has been attracted has been small. The only significant new investment has been American and that has been in one field—petroleum production. The investment of other foreign countries—primarily the Netherlands—has declined.

ATTITUDE TOWARD INVESTMENT

Indonesia has not yet developed firm policies toward foreign investment, because of serious problems facing the new nation which demanded the attention of its leaders. Some observers have characterized the prevailing attitude—at one time or another during the postwar years—as neutral or acquiescent and others have described it as ambivalent. A few have even called it "hostile." Although comments could be quoted to support this latter view, many of these have been expressions of Indonesian anticolonialism rather than statements of attitude toward the entrance of all foreign capital.

Some Indonesian leaders, recognizing the need for developmental capital, have spoken out in favor of attracting capital from abroad. They have been relatively few in number, however, and their recommendations generally have not been followed. Moreover, many Indonesians who recognize that a more tolerant policy in relation to foreign capital is fundamental to Indonesia's future economic development consider a positive stand infeasible in view of the present domestic political pressures.

Indonesian attitudes toward private foreign investment are strongly influenced by intense nationalistic feeling—a reaction to Indonesia's former colonial status—and by the views of political leaders who were educated in Western European socialism in the period 1920–35. In its sensitiveness to foreign investment, which arises from unsatisfactory conditions of its colonial past, Indonesia is not unlike other new nations with a similar history. Part of the strong domestic opposition to foreign investment has been from politically active groups which do not have a full comprehension of economics and are, without justification, convinced that the presence of foreigners and foreign capital will invite a return to colonialism.

Signs of a more balanced, mature view toward investment have recently appeared. If these grow, Indonesia can be expected to take steps to realize its economic potential. Although any rapid economic development will, of necessity, require capital from abroad, some Indonesians believe that Indonesia can develop, even though at a slower pace, by using its own resources. Indonesian leaders are increasingly gaining assurance that investment need not be accompanied by an encroachment of sovereignty. This assurance has been acquired from study of the history of the United States and other Western countries where economic development was greatly accelerated by foreign capital. In addition, some Indonesian leaders are begining to realize that if Indonesia wants foreign capital it must compete with other countries in attracting the limited amount available.

FOREIGN INVESTMENT POLICY

Reflecting various statements of high officials that Indonesia intends to attract foreign investment in a manner mutually beneficial to both the Indonesian people and the foreign investors, considerable attention has been given in the past few years to drafting a policy statement concerning foreign investment and an investment law. A draft investment law was prepared in 1953–54 and approved "in principle" by the Cabinet in late 1954. Although the drafted law [1] was not presented to the Parliament for consideration, interest in such legislation was indicated in a foreign investment policy statement of the Government on December 8, 1955.

The policy statement is quite broad and reiterates many of the points made in earlier statements; nevertheless, it indicates that in several respects a somewhat more liberal treatment may be accorded than in the past few years.[2] The announced policy is summarized below in 16 points.

1. The Government recognizes the need for capital investment to accelerate development, boost production, and improve living standards.

2. Since Indonesian capital is insufficient, foreign capital—both Government loans and private investments—is needed. Attractive terms will be drawn up, but Indonesian interests will be safeguarded.

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[1] This bill as drafted in 1954 reportedly called for the establishment of an investment board that would approve new investments and also attempt to promote investments. Approved new investments could be excepted from the 66⅔-percent transfer tax and the board could make other tax exemptions for desired investment projects. Reports are contradictory as to whether the law as drafted requires a certain percentage of Indonesian participation and as to whether some fields would be entirely closed to foreign enterprises.

[2] For example, the policy stated with respect to remittances and company taxes indicates plans for liberalization of the present situation.

3. Private national capital is free to operate in any field not reserved for the Government.

4. Social enterprises and public utilities, such as railways, telecommunications, interisland navigation, domestic air service, electricity, irrigation and water supply, and munitions and nuclear energy plants, must be Government owned.

5. Small-scale industries traditionally operated by Indonesians are closed to foreign investment.

6. Moves should be made toward giving Indonesians greater control of basic industries by limiting foreign control of investments to 49 percent. However, some industries under this category can be excepted from this limitation for a period not specified.

7. Enterprises not reserved for the Government and for Indonesians or considered basic industries (covered by points 4, 5, and 6 above) are open to both foreign and national investment, provided they are in line with the Government's economic policy.

8. Companies operating wholly or largely in Indonesia must be established in Indonesia and incorporated under Indonesian law.

9. New regulations will be drawn up covering use of land by estates, industries, and other enterprises for a maximum period of 40 years, with the possibility of extending leases. Provisions will also be made for land rentals.

10. Foreigners are allowed to work in Indonesia in accordance with regulations in effect. To promote the employment of Indonesians, however, conditions may be stipulated for each enterprise concerning the number of foreign personnel to be employed and the training to be established for Indonesians.

11. International agreements shall be entered into to prevent double taxation. Compensations such as lighter company taxes and allowances for depreciation of fixed investments are to be arranged for foreign companies established after January 1, 1950.

12. Privately owned enterprises, either national or foreign, which are not included under 4 above are not to be nationalized except by agreement with owners.

13. The following may be transferred abroad: (a) Profits of foreign investments after the payment of taxes; and (b) expenses of foreign investments in accordance with regulations.

14. The repatriation of foreign capital may be made in the currency of the investor's country after a business has been in operation for a period which is not specified.

15. A foreign investment law will be passed and a special body set up to execute the provisions indicated above.

16. For foreign enterprises already operating in Indonesia regulations will be drawn up to provide for a transition procedure gradually to place them in the same position as newly established foreign companies.

The statement is yet to be implemented by laws and regulations, and until additional details are provided the degree to which the conditions are attractive is not clear. Moreover, since the statement is that of an interim Government, the policies involved will need further clarification by the new Government which will come into power in 1956 as a result of the elections held in late 1955.

FACTORS AFFECTING INVESTMENT

Although the postwar climate for private investment in Indonesia cannot be described as favorable and in many respects is unclear, there are, however, some hopeful signs which may presage improvement. And it might be noted that only one of the American companies operating in an industrial field in prewar years has withdrawn and that the American oil companies operating in Indonesia are adding to their investments.

Many of the deterrents to foreign investment in Indonesia result from the underdeveloped state of the economy. Many are the same deterrents which beset the United States in its early years after independence. They include: (1) The fundamental economic instability resulting from heavy dependence on the export of a relatively few products, notably rubber, petroleum, and tin; (2) the low level of domestic savings and deficient local capital markets; (3) inadequate development in the fields of transportation, communications, and power, the necessary base upon which industrial development can be built; (4) a limited supply of skilled labor and low labor productivity; and (5) low per capita income, with a resultant small market for many products. Many of these deterrents exist to a greater or lesser degree in other underdeveloped countries and, as development progresses, tend to diminish or disappear.

The rate of Indonesian economic development in the postwar years has been slow. In some fields prewar levels of production have been exceeded, but in many fields current levels of performance remain below those of prewar years. The Government has shown concern over the rate of economic progress and is attempting to evolve a development program. No overall well-coordinated plan has emerged thus far, although considerable preliminary work has been done and is continuing in the planning field.

Domestic financial resources are small although perhaps not as small as the very inadequate statistical data suggest. Nevertheless, Indonesia faces a shortage of capital available for economic development and it is not likely that savings can be greatly increased in a short time. Assuming that Indonesia wants foreign capital to help finance new enterprises, there are few established

local entrepreneurs with which foreign capital can cooperate. In the colonial period business was concentrated in the hands of non-Indonesians and in the short time since independence, only a small number of competent Indonesian entrepreneurs have emerged.

Restrictions on Money Transfers

Among the factors which have discouraged foreign investments have been the restrictions on the remittance of profits and the repatriation of capital, coupled with high taxes. In June 1955 new regulations were issued applying to the transfer of profits for 1953 and 1954.[3]

For 1953, transfers of operating profits are permitted after deduction of the regular company taxes and payment of a 66⅔-percent transfer surcharge (for firms established prior to 1953). For 1954 profits, transfer licenses are granted for only 60 percent of the net profit (out of which the 66⅔-percent surcharge must be paid); 40 percent of the net profit must be deposited in a special account with the Bank of Indonesia. No restrictions exist on the total amount of the transfers of dividends for 1953, but for 1954 such transfers are limited to 30 percent of the paid-up capital.

Capital repatriation has been generally suspended since January 1954. Taxes, especially the corporation tax, currently at 52½ percent of net profits over 2,500,000 rupiah (about $220,000 at the official rate of exchange), are considered high in view of attendant investment risks. The Government's policy statement of December 8, 1955, implies that some repatriation of capital may be worked out.

Labor and Political Situations

Labor conditions have not been conducive to foreign investment. While wages are low by United States standards, the demands of labor unions, many of which are communist dominated, have frequently been considered unreasonable in view of low productivity. Although the Indonesian Government has developed a procedure to settle labor disputes, it has not been working in the manner originally planned. The court's decision sometimes appear to be against the employers merely because the company is foreign owned, a situation that may stem from the prevailing nationalist attitude.

Obtaining and maintaining competent technical and administrative staffs is one of the serious problems facing foreign firms operating in Indonesia. Companies often find themselves under pressure to hire Indonesians and experience considerable difficulty and delay in getting entry permits for foreign personnel. In view of the great difficulty in getting personnel to go abroad,[4] long delays in obtaining entry permits impose increased administrative expenditures upon companies. The desire of the Government to place Indonesians in higher technical and administrative positions is understandable and is respected by most foreign companies, many of which are carrying out extensive training programs of their own. However, such firms object to demands for the hiring of Indonesians in cases where competent personnel are not available.

There is a lack of trained Government personnel. However, a growing body of Indonesians is being trained in technical and administrative fields and a corps of competent Indonesian civil servants is being developed.

Many businessmen interested in foreign investment abroad have considered the postwar Indonesian political situation—external and internal—an important deterrent. With unsettled political conditions in Asia, the Far East generally has been less attractive than the Western Hemisphere or Europe, not to mention the attractive investment opportunities within the United States. Moreover, during part of the postwar period, Indonesia itself has experienced considerable unrest, some of the disturbances involving theft, arson, and property damage. These disturbances have been primarily actions by the armed forces of an extremist group and of former fighters of the revolution, although labor groups under communist domination have taken part in some incidents. As of 1955, however, the general security conditions appeared better than in the earlier postwar years.

Uncertainty about future operations is augmented by the fact that Indonesia has only recently had its first national election and an elected Government had not yet been installed. The orientation of the new Government, which is not at present clear, will be an important factor in future development.[5] The governments which have been in power since 1949 have all been handicapped in planning for long-range developments because of their transitional nature. The present Constitution is provisional. Most of the laws under which businesses operate date from the colonial period and will in time undoubtedly undergo

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[3] Regulations covering 1955 remittances have not yet been issued. The regulations cited here do not fully apply to the oil companies, for which special agreements have been made.

[4] According to executives of some business firms one of the principal difficulties in making oversea investments today is getting competent personnel to go to foreign countries, especially the less developed areas. There are much the same physical drawbacks to working abroad as in prewar years but, whereas before the war it was possible for such personnel to make large personal savings and to enjoy a good standard of living at low cost, this is no longer possible. Today, income taxes are high in many of the underdeveloped areas and the cost of living is as high or higher than at home. Moreover, foreign exchange controls may block the employee's earnings in the foreign country which are needed to meet financial commitments in his home country.

[5] In a December 1955 unofficial and incomplete tabulation of the parliamentary election which was held in September, the Nationalist Party and the Masjumi (Moslem) Party were neck to neck for the largest number of seats. The Nahdatul Ulama (Orthodox Moslem Party) and the Communists were trailing in that order but both had a substantial number of seats.

revision, but the nature of these revisions is yet to be determined.

The Provisional Constitution, for example, expresses a strong public interest in the exploitation of natural resources and "in branches of production of importance to the State." The interpretation of the Constitution in this field can only be ascertained by future developments; the nation is too new to judge as to how narrowly or how liberally such constitutional provisions will be interpreted, provided, of course, they are included in the revised Constitution.

Nationalization and Indonesianization

One of the deterrents American businessmen have pointed to is the increasing ownership and operation of industrial enterprises by the Indonesian Government and the statements of some officials who favor the nationalization of all basic economic enterprises. Government participation in various business operations cannot be considered as a completely new Indonesian development since the Netherlands Indies Government was deeply involved in economic activities in the prewar period.

In addition to carrying on various activities inherited from the colonial regime, some of which are in the same fields as private foreign ventures, the Indonesian Government is establishing several new industries as Government enterprises. However, in establishing such manufacturing operations as rubber remilling plants, sawmills, a soda plant, and a cement plant, the Government has stated that it expects at a later time to sell them to private businessmen.

To date Indonesia has largely confined nationalization [6] to enterprises in fields generally regarded as belonging to the public sector, such as the central bank of issue and various public utilities. The Government-owned Bangka tin mines were placed under Government operation, but in respect to other tin mines in which the Government has partial interest, e. g., the Billiton mines, the concession rights were renewed without additional Government participation. The disposition of oilfields in North Sumatra, formerly operated by a Dutch company and now under consideration for nationalization, has not yet been decided. On the basis of actions to date and present attitudes, it appears that the Indonesian economy will remain essentially a private-enterprise system for some time to come, but the Government will undoubtedly play a larger role than formerly.

In Indonesian nationalization actions, there is no record of expropriation without compensation. Nationalization of the Bank of Indonesia, for example, was accomplished by purchasing the bank's shares from individual holders. There was also full payment for the former Dutch-owned electric power companies which have been taken over by the Government. Based on this record, the general policy on nationalization can be summarized in the words of a former prime minister: "As a matter of principle I can state here that the Indonesian Government shall not nationalize in such a way that it would create a kind of surprise for the investors. Such nationalization could only take place through due process of law and would be given due and reasonable compensation." [7]

According to the investment policy statement of December 8, 1955, as summarized in point 12 above, nationalization except for the fields indicated as reserved for the Government will be only by agreement with the owners.

The tendency toward reserving some economic activities for Indonesians or to greatly increase their participation through regulations is viewed with misgivings by businessmen. It is feared that this "Indonesianization," which has been primarily in certain aspects of trade and transportaiton, will spread to other fields.

Other Factors

Probably the single most important factor favorable to future investment in Indonesia is the country's extensive and varied natural resources. Mineral resources are abundant and largely unexploited. Forest and fishery resources are also substantial. Agricultural lands can produce a wide variety of products.

In its 82 million people Indonesia possesses an important resource. At present the labor force operates at a relatively low level of efficiency. But that this low productivity is caused by factors other than those inherent in the population is brought out by the performance of Indonesians who have received adequate education and technical training. The efficiency is low because people are poorly educated, and in some cases, poorly nourished, and weakened by chronic disease. Their tools, production techniques, and farm units may have been adequate for a subsistence economy but are far less adequate for a modern economy.

Economic development normally brings about increases in income levels. With the present low average per capita annual income, purchasing power is very limited. With further development and higher income levels the market potential of Indonesia would take on new significance. A few items which formerly were imported for general consumption now are being produced within the country, and others could be.

[6] Nationalization is used here, in the usual sense, to mean the taking over of private enterprises by the Government.

[7] Statement of Ali Sastroamidjojo, then Ambassador to the United States, in a speech before an American trade group in 1953.

INVESTMENT EXPERIENCE

Potential United States investors are interested in the experience of foreign companies now operating in Indonesia—particularly American—as a key to the probable treatment of new investors. American investments in Indonesia are primarily in rubber estates and petroleum operations but are also in the manufacturing field. The estates are in a relatively unsatisfactory position, whereas the oil companies are more favorably situated. Most companies engaged in manufacturing are confronted with difficulties in their operations, and view expansion at present as unpromising. Their businesses are not entirely unprofitable, however.

During World War II, plantings on the rubber estates were partially destroyed. In the postwar years internal security has hampered operations; part of the estate output has been stolen and squatters have settled on some of the concession lands. Lease renewals are also uncertain, and, since many of the estate concessions have expired or will expire within a relatively few years, this uncertainty is an important consideration for companies which must plan for replanting. The Indonesian Government has not as yet decided what terms will be established for the renewal of such leases.

To this uncertainty have been added labor troubles and the difficulty of obtaining a competent technical staff among Indonesians to replace the Dutch and other foreigners who made up most of the staffs in prewar years. Furthermore, an extra export tax on rubber (which has ranged from 10 to 25 percent during most of the postwar period),[8] together with the high cost of other taxes and the limitation on remittances, has made financial returns less attractive than in other rubber-producing areas of the world.

The oil companies are in a stronger position than the companies operating rubber estates. They have immense financial resources, with producing and exploratory interests in many parts of the world. Moreover, for this industry the Indonesian Government has made special provisions. "Let Alone Agreements", which permitted the companies to operate outside the foreign exchange system, have assisted in the postwar rehabilitation of the petroleum industry.

In 1954 these companies, which have been investing new money on a large scale, successfully negotiated special tax and foreign exchange arrangements with the Indonesian Government. Despite certain operating problems, the oil companies are moving ahead in Indonesia. Of major importance to their future operations is the policy regarding concessions. The Indonesian Government has not yet decided the terms under which foreign companies can explore and exploit petroleum and other mineral resources.

[8] In 1955, this extra tax was reduced to 5 percent, and later it was removed along with other extra export taxes.

Foreign manufacturing companies report numerous problems, and profits are currently only moderate at best. These companies, together with domestic companies, find difficulties in obtaining foreign exchange for the importation of needed raw materials and new equipment a particular handicap in carrying out or expanding their operations. Demands for the promotion of Indonesians to positions for which the companies claim local competent personnel are not available have in some instances seemed unreasonable. Similarly, the policy of requiring the transfer of importing and other businesses to Indonesian firms has been criticized on the ground that few of these firms have the requisite experience, facilities, and capital to carry on such activities.[9]

PROBABLE FIELDS OF INVESTMENT

The general fields open to foreign investment are defined in broad terms in the policy statement of December 8, 1955, already given. The fields which will be fully open to foreigners (i. e., outside the spheres reserved for the Government and for national capital) are not clear, however, since no definition has as yet been given of "basic industries," which, in accordance with the statement, will be generally confined to 49-percent participation by foreign capital. Some types of manufacturing are expected to be open to foreigners on a majority-control basis and probably some types of mining, agricultural, forestry, and fishing ventures, but the specific types have not been indicated. On the basis of recent experience, it seems unlikely that foreign enterprises will be encouraged in trading operations.

Whether in the general field of manufacturing, mining, agriculture, forestry, or fishing, it can be expected that Indonesia will look most favorably on those enterprises which: (1) Produce for export and therefore are foreign exchange earners; or (2) manufacture goods now imported and therefore will reduce the country's foreign exchange expenditures. Generally, industries which involve the processing of domestic raw materials will be of interest to the Indonesians.

The Government appears likely to develop a system of screening to permit entry only to the fields which it considers desirable. Special concessions may be offered to attract desired projects. In any event, consideration of new enterprises is and will probably continue to be on a case-by-case basis, with detailed individual negotiation required before approval is granted.

[9] In the fall of 1955 the Government modified the former regulations requiring virtually all import trade to be handled by nationals, but as of the end of the year a number of commodities could only be imported by nationals, and foreign import companies were required to make substantial deposits in order to qualify as importers.

Engineering and other special types of technical know-how are particularly important to Indonesia in its efforts to expand and diversify its economy. The shortage of technicians and managerial specialists may in part be offset by policies designed to attract investors likely to bring in technicians. The Indonesian Government may also wish to hire directly American and other foreign engineering and management firms in connection with Government projects.

Investment: Past and Present

Indonesia's economic growth has to a considerable degree been the result of foreign investment in the colonial period. This investment started early in agriculture and trade and later was extended to mining, transportation, public utilities, banking, and, to a lesser degree, manufacturing. From the Indonesian viewpoint, development to the country's present status is sometimes viewed only as exploitation. Nevertheless, it must be conceded that without the inflow of Dutch and other foreign capital Indonesia's present productive output and its important participation in world trade in the 19th and 20th centuries would have been much more limited.

ESTIMATES OF INVESTMENT

Estimates of foreign investment in both prewar Netherlands Indies and postwar Indonesia vary considerably, partly because of differences in the methods of evaluation, but also because values underwent great fluctuations, public and private business investments cannot always be easily separated, and the Dutch were very reticent in giving out information of this type. All the figures mentioned here should be recognized as approximations based on a considerable amount of guesswork.

For the immediate prewar period estimates of total foreign investment ranged from about 2.5 billion guilders to about 7 billion guilders,[1] the more generally accepted estimates lying between 4 and 6 billion. The estimates of amounts invested in private enterprises varied from 1.3 billion guilders [2] to 3.5 billion.[3] The lower figure is considered too conservative; the higher figure, which appears to check with other data, is believed more realistic.

Table 1 indicates the importance of foreign capital in the economy of the Netherlands Indies during the period from 1900 to 1937. According to these data, which have been compiled from various sources and are considered as accurate as any, total foreign investments, including rentier investments (mainly Government bonds), amounted to about 5.5 billion guilders in 1937.[4]

Table 1.—Investments in the Netherlands Indies, 1900–1937

[In millions of U. S. dollars] [1]

Year	Entrepreneur investments [2]	Rentier investments [3]	Total
1900	300	[4] 18.0	318.0
1914	675	68.4	743.4
1930	1,600	396.7	1,996.7
1937	1,411	852.5	2,263.5

[1] Converted at the rate of 1 guilder equals $0.40, which represents the parity of the guilder in the former United States gold currency. This conversion has been used, rather than the rate of 1 guilder equals $0.55, in order to compare the 1937 figures with earlier years.
[2] Includes resident Chinese business investments.
[3] This term was used for Government investments, which were primarily investments through Government bonds.
[4] Includes only consolidated debt, i. e., state loans on behalf of the Netherlands Indies.

Source: *Foreign Capital in Southeast Asia*, by Helmut G. Callis and Carl F. Remer. New York, 1942. Data were compiled from various studies, as indicated in the source.

No accurate postwar estimates of overall foreign investment are available and most of the figures used publicly appear to be reiterations of prewar figures, sometimes with reference to changed conditions and sometimes without such reference. For example, in 1947 Vice President Hatta estimated that of the total postwar foreign investment (4 billion rupiah) only one-fourth or 1 billion remained.[5] Indonesia's Minister of Economic Affairs Wilopo stated, in 1951, "foreign investment at the present time comes to about 5 billion rupiah." [6] Another 1951 Indonesian Government estimate, however, placed "total private foreign investments" several times higher, or about US$1.3 billion.

In early 1955 in a memorandum on Dutch investments in Indonesia, the Government stated that the exact amount of such investments was not known, but had been estimated by several experts

[1] The prewar (1937–39) Indonesian and Dutch guilders, which were on a par, were equivalent to about US$0.55. In the postwar period, the term rupiah has replaced guilder for the Indonesian currency unit, and several devaluations have occurred (in 1946, 1949, and 1952).
[2] This estimate, included in a United Kingdom Memorandum based on issues of corporations, did not take into account reinvested profits, and neglected early investments which are considered of importance.
[3] Estimate made in 1939 by Professor Van Gelderen, who was for many years head of Netherlands Indies Statistical Institute.

[4] About $3,025 million at the 1937 rate of exchange or $2,263 million using the earlier parity of 1 guilder equals $0.40 (see footnote 1 of table 1).
[5] Statement made in a speech of January 11, 1947, dealing with economic policies of the new Republic.
[6] Statement reported in the press, October 1951.

at 2.5 billion rupiah.[7] Assuming that about 70 percent of investments in Indonesia were Dutch, this would give an investment total of about 3.6 billion rupiah (about $316 million at the official rate of exchange or $129 million at the 1954 market rate of exchange).[8]

Another estimate of a semiofficial group placed Dutch investments in Indonesia as of 1954 at about "4.5 billion rupiah at 1954 prices"; on the basis of this figure, and again assuming that 70 percent of the investments were Dutch, total postwar foreign investments would be 6.4 billion rupiah ($561 million at the official rate of exchange and $230 million at the market rate). Some estimates of total foreign investments, however, are considerably higher than these latter figures, placing the total foreign investment in the neighborhood of $1 billion to $1.8 billion.[9]

None of the postwar estimates indicated above result from detailed statistical postwar evaluations, but all are based on imperfect prewar data taking into account certain adjustments which are known to have occurred in the postwar period. Their validity may well be questioned, but they are the only estimates presently available.

PREWAR INVESTMENT

Dutch Investment

The predominance of the Dutch in investment in Indonesia is clear; their share is generally estimated for the immediate prewar period as two-thirds to three-fourths of the total. In terms of value, if the 4- to 6-billion-guilder range is accepted for total investment, then the Dutch share was within the range of 2.6 billion to 4.5 billion guilders.

The only itemized breakdown of prewar Dutch investment by type (see the listing below) shows the predominance in agricultural enterprises. Half of the Dutch private investment was in sugar, rubber, and other estate agriculture and a large amount was also invested in agricultural loan banks. Dutch interests dominated the sugar industry, although resident Chinese (included here as Dutch) were of some importance. In rubber, coffee, and tobacco, the Dutch interest was of major importance although less than that of native Indonesians. The manufacture of cinchona derivatives was exclusively, and the palm oil industry predominantly, in Dutch hands.

Prewar Dutch investment in private entrepreneur enterprises in the Netherlands Indies has been broken down as follows:

	Investment[1] *(millions of guilders)*
Sugar production	400
Rubber production	450
Other agricultural enterprises	350
Agricultural loan banks	274
Tin [2]	10
Petroleum	500
Shipping	100
Railroads and tramways [2]	150
Public utilities [2]	100
Industry	50
Miscellaneous	250
Total	2,634

[1] Includes resident Chinese capital which was officially classified as Dutch. Does not include capital investment of Dutch companies located in the Netherlands which operated in the Indies through direct branches or representatives, but which received a share of their income from trade with the Indies.

[2] In addition, governmental capital was invested in these fields.

Source: Article by A. S. Keller, entitled "Netherlands Indies as a Paying Proposition", in *Far Eastern Survey*, January 17, 1940.

Second to agricultural holdings was the Dutch interest in the production of minerals, notably petroleum and tin. The Dutch controlled more than one-third of the total production of oil.[10] Of the 500-million-guilder investment in this industry in prewar years, it was estimated that 360 million was that of Bataafsche Petroleum Maatschappij (BPM), a subsidary of the Royal Dutch Shell combine and the largest oil producer of the Indies.[11] Some of the important tin mines as of 1940 were Government owned and Dutch private investments were estimated at only 10 million guilders.

Aside from agriculture and mining, Dutch business investments were largest in communications and public utilities. The major shipping companies carrying on interisland trade, for example, were privately owned although operating under Government privilege. A considerable portion of this investment was also in power production and distribution.

Investment in manufacturing industries—aside from the processing of agricultural products and oil refining, data for which are included in figures for agriculture and petroleum—was estimated at 50 million guilders. Textile manufacture, cement production, paint production, and food and beverage production were important in this category.

Trade and banking, although not listed separately in the breakdown given above, were of investment importance. Moreover, the economic influence of the large Dutch trading firms and banks cannot be expressed merely in terms of their capital working in these fields.

[7] Figure used in memorandum forwarded by the Government to Parliament on February 18, 1955, as reported in the press. This figure and others of this memorandum appear, however, to be identical with figures reported for prewar years.

[8] The official rate used is 11.40 rupiah equal US$1 and the market rate, 28 rupiah equal $1.

[9] A recent report from The Hague, for example, referred to Dutch investment in Indonesia as totaling 4.5 billion guilders (about $1.26 billion). Assuming that the Dutch part represents 70 percent of total foreign investment in Indonesia, the total figure would be $1.8 billion.

[10] This statement is based on estimates that Dutch and British interests together controlled about 60 percent of the total production; the Dutch share in the combined interests was about 60 percent. In postwar years the American share in this industry has increased.

[11] Some sources place BPM's prewar investment considerably higher—at about 600 million guilders as of 1937. See Ernest O. Hauser's article entitled "Britain's Economic Stake in Southeast Asia," in *Far Eastern Survey*, December 22, 1937.

British Investment

Although Dutch investment easily predominated, the prewar policy permitted other foreign nationals to participate. Accordingly, British interests invested in many fields, including the production of petroleum, rubber, and other estate crops, merchandising, and banking. Estimates of total British investments as of 1937–39 range from about 280 million to 450 million guilders; the higher figure appears more realistic.

During the boom years of the 1920's, the British poured great amounts into estate agriculture, especially rubber, but also into the production of sugar, coffee, and tea. Investments in these fields declined from a valuation of 278 million guilders in 1929 to an estimated 200 million guilders in 1937. In the manufacturing field, the British-American Tobacco Co. carried on tobacco production as well as cigarette manufacture.

The business partnership of the British with the Dutch in petroleum enterprises meant that considerable British capital was invested in this industry in prewar years. Of BPM's total investment about two-thirds was reportedly Dutch and one-third British, i. e., the Shell component of the combine. The British stake in oil production has been placed at 240 million guilders for 1937.[12]

British mercantile houses and banking institutions also had extensive interests in the Netherlands Indies; however, no data are available as to the amount of capital invested in these fields.

American Investment

In the immediate prewar period United States business investments ranked after Dutch and British and resident Chinese investments, the latter being officially included in statistical data on Dutch investments. And of United States investments in the Far East, those in the Netherlands Indies were second or third.[13] Nevertheless, American investments were relatively unimportant—whether measured from the standpoint of the Indies in comparison with the holdings of other countries, or as a percentage of total United States investments abroad.

For the immediate prewar period American holdings were variously estimated within the range of 128 million to 220 million guilders (about \$70–132 million).[14] U. S. Department of Commerce data report United States direct investments at \$70 million in 1936, at the same level in 1939, and at \$71 million in 1940. These figures, however, which reflect book value, are considered very conservative as a measure of total United States investment.[15] Other sources, for example, place the holdings of the major American oil company operating in the Indies in prewar years at \$70 million in 1936 and American investments in rubber at this time at \$30 million to \$40 million, so that the total, on the basis of these data, must have been at least \$110–120 million.

Historically, American investments in the Netherlands Indies were made relatively late. As far back as 1898 Americans were interested in investing in the Indies, but the Dutch Government gave preference to Dutch and British capital. Although American capital had obtained a share in the Royal Dutch Co., it was not until 1912, when Standard Oil Co. was given an oil concession, that a purely American concern was successful in establishing itself.

It was not until the 1920's that American investment began to move into the Indies in important amounts, reaching a peak of \$201.3 million in 1929, of which \$135.1 million was in securities and \$66.2 million in direct investments. Later, with the elimination of most security holdings, the American stake declined, leaving largely direct investments in the immediate prewar period. These direct investments, as indicated above, were variously estimated at \$70–120 million for the 1937–40 period.

Americans were reported to control about 40 percent of the oil interests of the Indies in the immediate prewar period through the operations of two companies. One—N. V. Standard-Vacuum Petroleum Maatschappij—was a subsidiary of the Standard-Vacuum Oil Co., which in turn is owned jointly by the Standard Oil Co. of New Jersey and the Socony-Vacuum Oil Co. The other—N. V. Caltex Pacific Petroleum Maatschappij (Caltex)—was a subsidiary of Standard Oil of California and the Texas Co. At the outbreak of World War II, the first-named company was both producing and refining and also had an associated sales company whereas the second was still in the state of exploration.

Next in importance to petroleum was the production of crude rubber, with investments centered in Sumatra. The two largest American companies operating in the area were subsidiaries of the United States Rubber Co. and the Goodyear Tire and Rubber Co., but in addition there were several smaller American interests. The two large American companies, which produced for export to their principals in the United States, were considered pioneers in the production and shipment of latex and in scientific production and chemical research in crude rubber production.

After petroleum and rubber enterprises, American investment ranked highest in manufacturing. The largest American industrial plants in the

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[12] Estimate of Ernest O. Hauser (see citation in footnote 11).

[13] American investments in the Philippines were higher. According to some sources investments in China were also higher than in the Netherlands Indies. Direct investments, however, as shown by U. S. Department of Commerce data, were only \$46 million for China in 1940 compared with \$71 million for the Netherlands Indies.

[14] Converted at the rate of exchange of 1 guilder equals US\$0.55. Many of the investments were made before 1932, when the par value of the guilder was US\$0.40.

[15] The bases of these direct United States investment data are described in further detail in the section, "Postwar Investment."

Netherlands Indies were the passenger car and truck assembly plant of a subsidiary of General Motors Corp. at Tandjung Priok (port of Djakarta), and the tire manufacturing plant of a subsidary of the Goodyear Tire and Rubber Co. at Bogor. The General Motors plant did a large part of the total truck business of the Netherlands Indies and also enjoyed an important share of the passenger car business; the Goodyear factory reportedly had sufficient capacity to furnish nearly all of the tire needs of the country in prewar years.

Another fairly important American prewar manufacturing enterprise was the subsidiary of the National Carbon Co. (an affiliate of Union Carbide and Carbon Co.), which manufactured dry batteries, chiefly for use in flashlights. American interests in manufacturing fats and oils were represented by a branch plant of the Procter and Gamble Co., which made margarine and cooking fats in Surabaja, and by the Colgate-Palmolive-Peet Co., which manufactured soaps and toilet preparations under contract in a factory owned by others.

Other American investments in prewar Netherlands Indies were divided among sales and servicing offices of companies in the fields of electrical goods, sewing machines, business machines, and motion pictures. Only a few American trading companies operated in the Netherlands Indies and investment in these fields was largely limited to the value of office equipment.

Other Foreign Investment

The holdings of other nations were relatively small although French, Belgian, German, and Japanese interests had prewar investments which were not altogether insignificant. The French and Belgian investments were in rubber and oil-palm estates and the French also had substantial shares in the Royal Dutch Shell Co. (petroleum). In addition to some holdings in tea, coffee, rubber, oil palm, and cinchona, prewar German trade interests had erected a plant for constructing railway cars and equipment. Japanese capital, which had entered several fields of endeavor in prewar years, had holdings in sugar, tea, oil palm, and rubber. In the 1930's Japan had also entered oil production.

Resident Chinese investments have been included here in the figures on Dutch investments since they cannot be accurately separated. A rough estimate, based on what is known about the Chinese population in the Indies, their general economic position, and their family remittances to China, suggest that Chinese business capital may have been 300 million guilders or more in the immediate prewar period. The Chinese were predominant in trade, but were also represented in almost every branch of agricultural and industrial endeavor. They produced sugar and rubber, and Chinese capital was of importance in opening some of the tin mines. Rice milling, textile manufacturing, and rubber manufacture were among the industrial fields in which they were important.

Government Investment

Although business investments were impressive, rentier investments were also of great importance. These investments, mainly Government bonds, have been estimated at about one-third of total foreign investments in the immediate prewar period (table 1). This large governmental investment is partly the result of borrowing money to carry out the colonial Government's program of public works, especially during depression years.

Public indebtedness in the Netherlands Indies was high, being about 1.4 billion guilders in 1937 and, although reduced in later years, it was still more than 1.1 billion guilders in 1940. The per capita debt of the Netherlands Indies has been estimated at about US $10 in the 1938–39 period compared with about $3.5 for the Philippines and $3.3 for Indochina.[16] The Government bonds and other portfolio investment [17] were preponderantly in the hands of the Dutch. As of 1935 the Dutch share was estimated at about 80 percent, other holdings being primarily British. Americans had considerable dollar bond holdings in the 1920's but by 1935 most of these had been wiped out and, as indicated previously, in the immediate prewar period such investment on the part of Americans was relatively insignificant.

POSTWAR INVESTMENT

While no reliable figures are available covering postwar overall foreign investment or the important Dutch segment, it is generally recognized that the value of foreign investment—in terms of constant prices—is considerably less than in prewar years. Wartime destruction of property was large, and postwar disinvestment has been sizable as Dutch firms have tried to repatriate accumulated profits, surpluses, and capital investments. The holdings of other nationals, e. g., the British, may also have decreased. New Chinese capital has entered via Hong Kong, but the outward movement of Chinese funds may have been as great as the inward movement. The flow of American capital to Indonesia has been only in small amounts.

Because of the lack of statistical data, attention here is given only to United States invest-

[16] *Foreign Capital in Southeast Asia,* by Helmut G. Callis and Carl F. Remer. Institute of Pacific Relations, New York, 1942.

[17] The total portfolio investment is somewhat larger than the bonds of the various municipalities, regencies, and other public bodies because it also includes issues of other Netherlands Indies debentures, some not officially quoted.

ment and most of the statements regarding this segment are based on U. S. Department of Commerce information covering direct investments alone. Admittedly, these data greatly understate the total United States investment in Indonesia.

The most recent detailed census of United States business direct investments abroad was conducted by the Department of Commerce for the end of the company fiscal periods closest to December 31, 1950. For more recent years estimates have been made based on known changes in company operations. The following itemization shows the estimated value of direct United States investment in Indonesia in 1949–54.

	Millions of dollars
1949	62
1950 (census year)	58
1951	72
1952	74
1953 [1]	88
1954 [2]	66

[1] Revised.
[2] Preliminary. The reduction between 1953 and 1954 is believed to result primarily from repayments on advances made by parent companies rather than disinvestment.

Source: Office of Business Economics, U. S. Department of Commerce, *Survey of Current Business,* August 1955.

In 1950 the net American equity interest ("book value") in foreign subsidiaries operating in Indonesia was $58.2 million. This net book value, however, reflected total assets valued conservatively at about twice that amount, or $120 million. In addition, the "true" value of these properties was undoubtedly considerably higher than the indicated book value.[18]

The industry breakdown of the 1950 direct investment, given in table 2, shows the predominance of petroleum and agricultural—mostly rubber—enterprises. Manufacturing was confined primarily to four types of operation—automobile and truck assembly,[19] tire manufacture, production of margarine and cooking oil, and the manufacture of dry batteries. Other investments included, as in prewar years, the sale and service operation of several sewing and business machine companies, the distribution functions of leading American motion picture producers, the limited operation of American trading companies and the investment in properties used for religious, charitable, and educational purposes.

Table 2.—Value of United States Direct Investments in Indonesia, by Industry, 1950 and 1953–54

[In millions of U. S. dollars]

Industry	1950	1951	1954 [1]
Agriculture	13.5	(2)	(2)
Mining and smelting			
Petroleum	30.7	(2)	(2)
Manufacturing	9.7	17	19
Transportation, communications, and public utilities	(2)	(2)	(2)
Trade	1.7	3	4
Other industries	2.6	[3] 68	[3] 43
Total	58.2	88	66

[1] Preliminary.
[2] Included in other industries.
[3] Primarily petroleum.

Source: Office of Business Economics, U. S. Department of Commerce.

From 1950 through 1953 an increase of about $30 million was registered in direct United States investments in Indonesia. Most of this amount represented new investment of the oil companies. The year 1954 brought a decline to $66 million. This reduction, however, probably resulted from the repayment of short-term advances to parent companies rather than any real disinvestment.

Despite the prewar interest in the Netherlands Indies as a field for United States investment and some investment experience in this area, Indonesia has been largely bypassed as a field for United States investment in postwar years. This is revealed in table 3, which provides a summary comparison on the basis of direct investment data, with certain other countries for the period 1949–54.[20]

Table 3.—Value of United States Direct Investment in Selected Countries, 1949–54 [1]

[In millions of U. S. dollars]

Country	1949	1954 [2]	Percent increase
All countries	10,700	17,748	66
Indonesia	62	66	6
Canada	3,146	5,939	89
Brazil	588	1,050	79
Colombia	194	263	36
Mexico	374	523	40
Peru	148	255	72
Egypt	38	54	42
Union of South Africa	105	216	106
India	27	92	241
Philippine Republic	132	216	64
Australia	161	387	144

[1] This table provides a general indication of the levels of direct investments in various countries. Because of differences in company bookkeeping procedures, however, country comparisons are in many instances not completely valid. See footnote 16 of this chapter for the basis of these figures.
[2] Preliminary figures.

Source: Office of Business Economics, U. S. Department of Commerce.

[18] The basis of valuation used in the census was the equity of the reporting American companies in the subsidiaries or branches operating in Indonesia, as reflected on the books of the latter, the conversion of local currency figures into dollar terms being in accordance with standard accounting practice. It is customary for most companies to value such current assets as inventories at cost or market value, whichever is lower, and fixed assets at cost less depreciation (usually resulting in a figure much less than replacement value). Furthermore, it is general practice in the extractive industries to charge off depletion against a wasting asset (e. g., petroleum reserves) more rapidly than the asset is being depleted physically. The figures include only those investments in which the controlling interest is resident in the United States and in which the United States investors have an important role in the managerial control. See "Foreign Investments of the U. S.," in *Supplement to the Survey of Current Business,* U. S. Department of Commerce, Office of Business Economics, 1953.

[19] At the end of 1954, the General Motors Co. closed its operations in Indonesia. In 1955, the former G. M. plant, purchased by the Indonesian Government, was reopened.

[20] Admittedly, these data are imperfect in measuring United States investment abroad, but they are the only ones available for a number of countries on a somewhat comparable basis.

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The Land, the People, and the Government

THE PHYSICAL SETTING

The Republic of Indonesia occupies most of the large island archipelago which lies between southeast Asia and Australia. From west to east the country extends more than 2,800 miles, approximately the same distance as from California to Maine. From north to south it extends a distance equivalent to that from the Canadian border to central Texas. Its actual land area, consisting of four large islands and more than 3,000 small ones, is 575,893 square miles,[1] or about one-fifth that of the United States.

The relative size of the principal islands is as follows (in thousands of square miles):

Kalimantan (Borneo) [1]	208.3
Sumatra	164.0
Sulawesi (Celebes)	73.0
Java [2]	48.8

[1] Excludes that part of the island of Borneo which is British territory (Sarawak, Brunei, and North Borneo). Reference throughout this report to Kalimantan (Borneo) is to only the Indonesian portion.

[2] Including Madura, which is often grouped with Java, the area would be about 51,000 square miles.

The western islands—which include three large ones, Sumatra, Java, and Kalimantan—lie on the Asian land shelf and were within fairly recent geologic time connected with the mainland. The seas separating them from Asia are shallow and much of their coastal area consists of tidal swamps extending far inland. The eastern islands and neighboring New Guinea rest on the Australian land shelf and formerly constituted a part of Australia. Most of the central islands, which include Sulawesi, the Lesser Sunda Islands, and the Moluccas, however, rise out of deep ocean in what was once a wide strait separating the Asian and Australian continents.

Topography

The topography of Indonesia is one of strong contrasts. The country is predominantly mountainous, with a central range running along the length of the archipelago. Subsidiary ranges curve northward to the islands of Kalimantan, Sulawesi, and Halmahera of the Moluccas group. Considerable areas of plains, however, border the coasts such as the recently uplifted marine formation on the northern coasts of Sumatra and Java. And throughout the islands there are more or less extensive alluvial plains.[2] Sizable swamp areas cover part of the coastal regions.

The Lesser Sunda island group (Bali, Lombok, Sumbawa, Sumba, Flores, and others) is characterized by deep-sea basins and steepsided mountains with only small plains; here, mountain building is evidenced by frequent earthquakes as well as volcanic action. More than a hundred of the Indonesian mountains are active or recently active volcanoes and the western and southern islands are among the most volcanic territories in the world.

Volcanic ash carried down by rivers enriches the soil of the plains. This is an important factor affecting the fertility of the land, and, in turn, the country's agricultural development.

Climate

Because Indonesia lies along the Equator, days and nights are almost equal in length and the variation between the longest and shortest day is only about 40 minutes. Owing to this uniform duration of the sun's radiation seasonal differences in temperatures are slight. Indonesia has no winter, spring, summer, and autumn and the temperatures throughout the year are generally hot.

The mean annual temperature at coastal sea-level points is about 77° to 81° F., the absolute maximum temperature about 93° to 97°, and the average maximum temperature about 86° to 89.5°. The absolute and average minimum at coastal places vary, respectively, from about 61° to 71° and from 70° to 75°. The mean annual tempera-

[1] Excludes Netherlands New Guinea (known as West Irian to the Indonesians), the political status of which is in dispute between the Netherlands and Indonesia.

[2] Java has a larger proportion of area in low plains than most of the islands and its mountainsides slope more gently. These plains, which are enriched by volcanic deposits, have great fertility and suitability for irrigation.

ture at Djakarta, for example, is 78°, with the highest monthly average at 80.6° and the lowest monthly average at 77.5°. The tropical heat of the lowland areas is tempered, to a varying degree depending upon location, by ocean winds.

The average temperature decreases about 1° F. with each increase of 350 feet in altitude. Thus the mountain districts offer cool relief from the hot lowlands. At Bogor at 800 feet above sea level the average annual temperature is about 75°; at Bandung, at about 2,000 feet it is 71°; and at Tosari (in East Java) at 5,790 feet, 61°.

Rainfall is heavy in nearly all parts of Indonesia and increases with altitude. Some mountain areas are drenched with 10 to 12 feet of rain, but the lowland areas generally range from about 70 to 125 inches. At Djakarta (Java) rainfall averages about 72 inches annually, at Medan (Sumatra) about 82, at Pontianak (Kalimantan) about 120, and at Manado (Sulawesi) about 105. Only in the islands of the southeastern part of Indonesia is there a distinctly dry season and relatively light rainfall.

Although the temperature varies only slightly throughout the year, the monsoon winds cause a seasonal change in rainfall. However, the monsoons are less pronounced than in most of Southeast Asia, giving a more even pattern of rainfall. In much of Indonesia the "wet" season, at the time of the west monsoon, prevails throughout the winter months of the Northern Hemisphere, and there is a drier period during the east monsoon at the time of our summer months. The dry season is relieved by occasional showers, but rains are lighter and of shorter length than in the wet season.

In Java the greatest precipitation generally occurs in December, January, and February and the least in June, July, and August. In parts of eastern Indonesia, however, the seasons are reversed, with the heavier rainfall at the time of our summer months. Moreover, the difference between the monsoons varies greatly from year to year; in Java some years have no real dry season while in other years the dry season lasts for several months. East Java normally has a longer dry season than West Java.

Although temperatures of the lowland coastal areas do not register as high as those of tropical continental areas nor as high as summer temperatures of many middle latitude places, the humidity is generally high. In Djakarta, for example, the average annual humidity is about 80 percent. This means that the heat is more uncomfortable although there are few days which are as oppressive as many summer days in Washington, D. C., or Tokyo. Because of the combination of year-round high temperatures and high humidity in the lowlands, trips to nearby mountain places offer welcome relief.

Natural Resources

The natural resources of Indonesia—particularly mineral and agricultural—are extensive and are largely unexploited. The mineral deposits have never been completely surveyed, but on the basis of present knowledge they provide a large potential. Chief among these are petroleum, tin, and bauxite which are currently being produced in sizable quantities, but other minerals include coal, manganese, iron, asphalt, phosphate, copper, nickel, tungsten, sulfur, and iodine, as well as gold, silver, platinum, and diamonds. The estimates of waterpower reserves are not considered very reliable but a relatively large potential is clearly indicated. Only a very small fraction of the hydroelectric resource is being utilized.

The agricultural raw materials contributed to the trade of the world have been varied and important. In prewar years the Netherlands Indies supplied about one-third of the world's rubber, palm-oil, and coconut products, two-fifths of the world's kapok, four-fifths of the world's pepper, and one-fifth of the world's tea. Important quantities of sugar and coffee were also produced.

Although Indonesia's position in world markets has shifted for many of these products, this list and the numerous crops (rice, corn, vegetables, and a great variety of fruits) grown for domestic consumption indicate the broad base of Indonesia's tropical agriculture. Moreover, there are extensive land areas which, when cleared, would be suitable for expanded agricultural production. While the country has poor jungle soils subject to rapid leaching under cultivation, large areas have rich volcanic soils.

Forests are extensive and contain sections capable of exploitation. Some forest areas, such as those of Kalimantan, have hardly been explored. Products include teak, ironwood, and other hardwoods, bamboo and rattan, mangrove bark for tanning, cinchona bark, indigo, and gums and resins. Extensive stands of pines occur in the mountains of North Sumatra. Fishery resources, inadequately known, are believed to be large. Food fish are plentiful in the seas surrounding Indonesia, and inland rivers and lakes contain additional resources.

THE PEOPLE

An understanding of the population structure and population problems is essential to an evaluation of the potentialities of Indonesia as an area for foreign investment. The present population is about 82 million,[3] which makes Indonesia the

[3] No population census has been taken since 1930, which recorded a population of 61 million for the Netherlands Indies. Recent estimates range from 76 million to 85 million persons. Adding to the figure used by the United Nations for 1954 (81 million) the annual rate of increase estimated by Sumitro Djojohadikusumo, a leading Indonesian economist (1.2 million per year), the population as of 1955 is estimated at 82.3 million. See appendix A for more detailed population data.

sixth largest country in the world in terms of population, and the numbers are increasing at a relatively rapid rate. The population distribution is uneven, with some areas among the most densely populated in the world and others underpopulated.

Population Characteristics

The indigenous, or Indonesian, population consists of several different groups; the Javanese, the Sudanese, the Achenese, and the Ambonese, for example, have different languages, customs, and other cultural traits. With the exception, however, of people of the extreme eastern area, the Indonesians are predominantly of basic Malay racial stock. These indigenous peoples, who constitute some 95 percent of the total population, are primarily farmers.

The largest non-Indonesian group are Chinese, who are estimated to number about 2 to 2.5 million, or about 3 percent of the total population. To many of this group Indonesia has been home for generations and they speak the local language as well as Chinese. Less than a third of them, however, are Indonesian citizens and they are largely nonassimilated or only imperfectly assimilated. Many live in cities and towns and are engaged in trading, are independent entrepreneurs in diverse fields (for example, rice and rubber milling and moneylending), or are employed as skilled artisans, foremen, supervisors, or in clerical positions. Considerable numbers are also manual laborers on plantations and in the tin mines.

Persons who may be classed as "Western" probably numbered about 150,000 as of 1955; in prewar years they numbered an estimated 250,000 to 300,000. Although accounting for far less than 1 percent of the total population, this group has occupied an important position with respect to large-scale agriculture, industry and trade, and the professions. Dutch citizens still comprise a major part of this group, although their numbers have been greatly reduced since independence.[4] Other Westerners include British, other Europeans, and Americans.

Eurasians, largely of mixed Dutch and native blood (who are included in the above figure for "Westerners"), form a sizable minority group; in prewar years this group was estimated at 100,000 to 150,000. Permitted a choice of citizenship, some Eurasians have become citizens of the Netherlands whereas others hold Indonesian citizenship.

Asians other than Indonesians and Chinese are mainly Arabs, Indians, and Pakistanis, who constitute smaller minority groups. The Arabs, who number about 80,000, are in most cases Indonesian citizens; a high percentage are engaged in the textile business and retail trade. According to one estimate Indians and Pakistanis number about 30,000.

Assuming the present population to be approximately 82 million, it is distributed about as follows:[5]

	Millions
Java and Madura	54
Sumatra	13
Kalimantan	4
Sulawesi	6
Lesser Sunda and Molucca Islands	5
Total	82

Population density on Java and Madura is the highest in the world for any comparable area—about 1,000 persons per square mile. These two islands, with about 9 percent of the land area of the country, have more than 60 percent of the population. In the other islands density is much lower; it averages about 550 per square mile for Bali and Lombok, 84 in the other Lesser Sundas, 72 in Sulawesi, 56 in Sumatra, 22 in the Moluccas, and only 13 in Kalimantan.

As a result of the exceedingly dense population of Java and the relatively sparse population of most of the other islands, resettlement or "transmigration" schemes have been attempted for many years—by the Dutch in the prewar colonial period and in recent years by the Indonesian Government. Most of the Dutch attempts at large-scale emigration from Java to the Outer Islands were unsuccessful. Likewise, the Indonesian Government has made little progress in its plans, moving only a few thousand families each year—equal to but a small percent of the natural increase on Java.

Major cities and their estimated populations as of 1953 are: Djakarta, the capital (2,500,000), Surabaja (926,000), Bandung (724,000), Jogjakarta (500,000), Surakarta or Solo (340,000), Semarang (335,000), and Malang (300,000), all in Java; Medan (500,000) and Palembang (238,000) in Sumatra; Makasar (265,000) in Sulawesi; and Bandjarmasin (150,000) in Kalimantan.

Occupation and Economic Status

In the absence of accurate census data, it is estimated that about 75 percent of the total employment is in agriculture, some 10 percent in village industry and manufacturing, and 15 percent in all other types of activities. Estimates of the effective labor force are about 20 to 22 million, or about one-fourth of the population. This low percentage results from the large proportion of children and unemployables, some of the latter being in poor health. Rural underemployment is widespread.

[4] The number of Dutch in Indonesia since World War II has probably been reduced by half and is continuing to decline. In addition to those who have left the business fields, the large numbers formerly employed in the civil service have been reduced; today, only relatively few Dutch are employed by the Indonesian Government.

[5] Since the last full census was held in 1930 these estimates, as well as all other population estimates, are subject to a wide margin of error.

Indonesia's agrarian population lives, on the whole, at little more than a subsistence level. Per capita annual income is quoted at various figures but, on the basis of imperfect data and using the market rate of exchange, it may be considered as about $40.[6] The standard of living should not, however, be measured in terms of cash income. Much of the economy is of a subsistence type which involves little or no exchange of money. And in most of Indonesia, even crowded Java, the average *tani* seems to live as well as or even better than farmers in many other parts of the Far East.

Although based on inadequate statistics, the very rough estimates below indicate the relative order of magnitude of Indonesian national income by source:

	Percent
Subsistence agriculture, village crafts, and personal services	40
Internal distribution and trade, small industry, and miscellaneous services	20
Export production—smallholder and estate agriculture, mineral production	20
State services, armed forces, Government enterprises	20

Most of the export production is in the hands of Westerners, who carry out estate agriculture and produce petroleum and other minerals. Smallholder production of rubber, copra, and other agricultural products for export, however, constitutes at least one-third of this segment. Much of the internal distribution and small industry is controlled by resident Chinese and foreigners, although the proportion of Indonesians in these fields is increasing.

Language, Religion, and Social Pattern

The Indonesians speak a variety of languages and dialects[7]—Javanese, Sundanese, Mingangkabau, Balinese, and Ambonese to name a few—and although nearly all these belong to a single linguistic stock they are mutually incomprehensible. Fortunately, the linguistic problem is simplified by the fact that a kind of "basic Malay," which has long been the language of trade, is generally understood throughout most of the islands.

The official Indonesian language (Bahasa Indonesia) is an expanded and modernized form of Malay with borrowings from various Indonesian dialects as well as from Dutch, Arabic, and Sanskrit. Dutch and English are the other important languages. Although Indonesians in governmental and business circles know Dutch, its use has generally been discouraged since independence. English is now the secondary language of Indonesia, is a compulsory subject in secondary schools, and is being used increasingly in business circles. Nevertheless, it will be some years before any large proportion of Indonesians can read, understand, or speak English.

The great majority of Indonesians—about 90 percent—adhere to the Moslem faith. The people of Bali have remained Hindu in religion and, along with Buddhists, make up about 6 percent of the population. About 2,500,000 profess Christianity; both Protestants and Catholics are numerous in some areas, particularly in the Outer Islands. The Islamism, Christianity, or Hinduism of Indonesia is hardly of a "pure" sort in many instances. Fundamental pagan beliefs persist among a large proportion of the people.

The Moslem New Year (*Lebaran*) is the most important religious holiday. Occurring at the end of the Islamic fasting month, it is an occasion for new clothes, festive foods, and greetings between friends and relatives.

The indigenous population has an ancient literature, art, and music of its own. Although that of Bali has been widely publicized because of its high development, villages in Java, Sumatra, and other islands also have their cultural traditions. In recent years, however, diverse influences have touched on the Indonesian cultural pattern and some Western concepts and techniques have been adapted and assimilated, particularly in the larger urban centers.

In a country of such varied ethnic and cultural groups as Indonesia, generalizations regarding the social pattern cannot be completely accurate. Nevertheless, it may be considered generally characteristic that the social organization is built around the village (*desa*) where life is slow and unhurried, reflecting simple and easily satisfied wants. And a mutual help or cooperative spirit (*gotong-royong*) appears to be strongly ingrained in most Indonesians.[8] The leisurely tempo of the social pattern is reflected in low productivity in agriculture and industry, although poor nutrition and health are undoubtedly other important factors. The dominance of communal action in Indonesian life may be considered as contrasting with the individualistic, competitive spirit characteristic of Americans.

The social life of the people continues to be based on principles of the ancient Indonesian tradition of *adat* or customary law, which in many respects differs greatly from Western law.

Education and Health

Educationally, Indonesia is behind most countries of the Far East, but special efforts are being made to overcome this situation. The rate of il-

[6] Estimates of the national income of Indonesia based on adequate statistics do not exist. An estimate, made several years ago by S. Daniel Neumark for the Indonesian Government's National Planning Board, placed total national income at 70 million rupiah for 1951 and 81.2 million for 1952, or 905 rupiah per capita for 1951 and 1,033 for 1952 (using population figures of 77.4 and 78.6 million, respectively). On the basis of the official rate of exchange the per capita income for 1952 was $91; on the basis of the market rate, less than $40. Some observers consider Neumark's estimate too high. See the article, entitled "The National Income of Indonesia, 1951–1952," by S. Daniel Neumark in *Ekonomi dan Keuangan Indonesia*, June 1954, and subsequent issues of this publication for additional discussion.

[7] There are some 20 to 25 major ethnic and linguistic groups and several hundred dialects.

[8] This characteristic is being used in developing the cooperative movement, which has made considerable progress in rural Indonesia.

literacy is still high and the number of persons receiving higher academic and vocational training, though increasing, is small.

At the end of the colonial period the rate of illiteracy was estimated as 90 to 95 percent of the population. The Indonesian Government's intensive adult-education program to correct this basic deficiency had, according to official figures, reduced the illiteracy rate to about 65 percent in 1954, but many observers consider a figure of 80 or 85 percent as more realistic. Even these latter figures, however, indicate real progress.

The country has few teachers and schools in proportion to its large population, but strides are being made in improving this situation and in increasing the opportunities for secondary and higher education and for vocational training. According to the Ministry of Education, the total number receiving primary and secondary education increased from 2,300,000 in 1940 to about 6,400,000 in 1952–53. During the prewar period the opportunity for higher education was narrowly restricted; in 1940 less than 1,000 students were at institutions of university level.[9] In the postwar period the number receiving higher education has greatly increased; in recent years it has reached about 20,000.

In addition to the increase in higher education within the country, a growing number of Indonesians are being sent abroad under various technical assistance programs.

Although the Ministry of Education in particular is pushing educational programs, other ministries of the Government are organizing specialized training. For example, the Ministry of Agriculture has charge of a variety of schools and training programs as well as Rural Community Centers, the Ministry of Labor has programs to teach skills to unemployed workers, and the Ministry of Information is trying to inform the population via radio and other communications media.

Some of the foreign companies operating in Indonesia, especially the oil companies, are participating actively in the educational programs by maintaining schools for children of their employees, assisting in combating illiteracy, and providing vocational and university training for selected Indonesians both in Indonesia and abroad.

Even with the programs now under way, however, the task of preparing enough trained personnel will take many years. There are qualified Indonesians—in Government posts and in fields of private enterprise—but their numbers, though growing, are very small for so large a country. This is one of the most difficult problems in the country's economic development.

Indonesian health conditions are poor by Western standards, and medical facilities are very limited in comparison with those of most Far Eastern areas. The country has nutritional problems;[10] sanitation, though good in a few places, is apparent by its lack in most areas; life expectancy is only 32 years; infant and child mortality rates are high; and such diseases as malaria, yaws, and tuberculosis are endemic. These conditions, which have been aggravated by years of wartime occupation followed by revolution, are recognized by Indonesian authorities and progress is being made in correcting them.

The present shortage of doctors (an average of about 1 doctor to every 60,000 persons) will gradually be alleviated through the program now in operation for medical training; attention is being given to maternal care and child health; and intensive campaigns are showing considerable success in combating some of the endemic diseases, especially yaws. A mass DDT-spraying program is also being carried on to combat malaria.

Much assistance has been provided Indonesia in this field of improving health conditions by United Nations agencies through the programs of the World Health Organization (WHO) and the International Children's Emergency Fund (UNICEF), and also by the United States through the International Cooperation Administration (ICA) and its predecessor agencies.

Most of the larger foreign companies operating in Indonesia provide medical facilities for their employees. Some of them also furnish an important part of local community medical needs.

THE POLITICAL SETTING

Since December 1949 Indonesia, which was a former Dutch colonial area, has been a sovereign independent state and from August 1950 has been the Republic of Indonesia, a constitutional democracy with a unitary form of government.[11] The present governmental structure, based on the Provisional Constitution, is considered interim. The first national election took place in September 1955 but the final election results were not known as of the end of the year. The composition of the elected Government which will choose a constituent assembly to draft a permanent constitution and may make changes in the governmental structure is at present not clear.

Under the Provisional Constitution the present legislative body is a large unicameral Parliament

[9] In the colonial period a very small number of Indonesians received a thorough education with special emphasis on languages, as in the Netherlands. Law and political science were fields of advanced study for a few. Training in scientific, technical, and business fields was very limited.

[10] There are various estimates of the daily caloric intake per capita, ranging from 1,800 to 2,300. A recent study of the Food and Agriculture Organization of the United Nations estimated the average daily intake at about 1,900 calories. Although 2,400–2,600 calories is commonly considered as the minimum desirable caloric intake for a European, this figure may be high for the smaller and slightly built Indonesians. Thus, Indonesian caloric intake, which is generally equivalent to that of other countries of Southeast Asia, may not be badly deficient. Nevertheless, from the nutritional standpoint the Indonesian diet is considered poor because of deficiencies, especially in proteins and vitamins.

[11] Prior to August 1950 there was a loose federation of States, the Republic of the United States of Indonesia. Fearing that the Dutch might continue to divide and rule, Indonesian leaders worked for a unitary state, which was instituted as the Republic of Indonesia.

whose members have been chosen on the basis of geographical, cultural, and political representation. The Prime Minister and his Cabinet of 18 portfolios are responsible to the legislative body. The executive officers are a President and a Vice President. The President can dissolve Parliament, call new elections, and initiate legislation. He must also approve all legislation.

Administratively, the Republic is divided into 10 Provinces, each Province being administered by a governor and a local legislative body. These Provinces, with their capitals in parentheses, are: West Java (Bandung); Central Java (Semarang); East Java, including Madura (Surabaja); North Sumatra (Medan); Central Sumatra (Bukit Tinggi); South Sumatra (Palembang); Kalimantan (Bandjarmasin); Sulawesi (Makasar); Lesser Sunda Islands (Den Pasar); and the Moluccas (Ambon). The Provinces, in turn, are divided into regencies.

Indonesia has a multiple-party system, with several major parties and a score or more of lesser ones. A basic problem to date has been that the governments in power have been produced from unsteady coalitions and most of them have been short lived. Since the transfer of sovereignty there have been six cabinets. Despite these cabinet changes, however, there appears to be an increasing stability among the top civil servants in the various ministries.

As of November 1955 the Prime Minister was of the Masjumi or Moslem Party, which is one of the two largest parties, and the cabinet was a coalition of 12 parties, but without the Nationalists (PNI) and Communists (PKI), the other two leading political parties. The Nationalists were in power for 2 years prior to August 1955 and during that time drew support from several parties, including the Communists. The complexion of the newly elected Government will not be known until an official electoral count has been completed.

In its relations with foreign nations Indonesia adheres to what is generally considered a neutral policy, although its leaders prefer to describe it as "independent and active." Indonesia has steered a course designed to keep it from becoming involved in the East-West struggle of the postwar period. The Indonesians looked to the United States for aid during the early postwar period and they have also more recently worked out technical assistance and loan programs with the United States. To balance such relations with the West, Indonesia has taken such steps as the establishment of diplomatic relations with Peiping and Moscow, and the signing of trade agreements with communist countries.

Since 1950 Indonesia has been a member of the United Nations, and it is a participant in many of the specialized UN agencies.

Internally, security conditions created a major problem in the postwar years which is not completely solved.[12] In most areas of the country conditions are improved as compared with a few years ago; the seriousness of the outbreaks has lessened and incidents are fewer. In the past year and a half, however, important security difficulties have been experienced in such distant areas as Atjeh in extreme northern Sumatra and Makasar in Sulawesi. Some sections of West Java are not under unchallenged governmental control and estates in many parts of the country have serious problems resulting from theft of their produce and from occupation of parts of their concession lands by squatters. Insecurity has been a serious drag on the economy and will not be easy to completely overcome.

The strong centralization of Government control in Djakarta[13] has also resulted in internal difficulties. Regional dissatisfaction is evident, for example, in the demands made by groups in Sumatra and Sulawesi for greater autonomy. There appears to be growing recognition, however, that Djakarta officials cannot make all decisions and that internal political adjustments may be required in order to meet the demands for increased local autonomy.

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[12] Indonesia has had insecurity throughout the years since the end of World War II. Even since the revolution against the Dutch which ended in 1949, violence has occurred almost continuously in some part of the country. These include the Westerling Revolt in West Java; recurrent raids by an extremist group in Central and West Java; the Ambon Affair and other difficulties in the Moluccas; the Atjeh (Sumatra) revolt of 1953–54; and the rebellion in southern Sulawesi.

[13] Provincial governors are appointed by Djakarta and are responsible to the Central Government. Each of the ministries has branch officials at the Provincial and regency levels, but authority rests with officials in Djakarta.

Agriculture

The Indonesian economy is based primarily on agriculture, supplemented by other types of extractive industries, particularly mining, and small-scale manufacturing.

About three-fourths of the employed persons in Indonesia are engaged in agricultural pursuits, and agricultural exports make up about three-fourths of total Indonesian exports. About 42 million acres are under cultivation.[1] Most of this land is devoted to food crops but some 35 or 40 percent is in commercial export crops. About 60 percent of the cultivated land is on Java and Madura, the rest being scattered throughout the Outer Islands.

SMALLHOLDINGS AND ESTATES

The agricultural economy falls into two types: Small-scale farming carried on almost exclusively by Indonesians and large-scale estate production generally operated by Westerners. Almost all of the output of the estates is intended for export; that of the Indonesian smallholders is for both domestic consumption and export. Although the line of demarcation between the two types of agriculture is not always sharp, in general the size of the holdings and the methods of production are distinctive.

Smallholder Agriculture

Millions of small farms are operated by native producers principally growing rice and other food crops for family consumption. The farmer in many cases is virtually self-sustaining, with his smallholding planted to rice, corn, cassava, and coconut and with some production of vegetables and fruit and a few chickens.

Some years ago it was estimated that only 10 percent of the output of the average Javanese farmer was devoted to cash crops, the rest being consumed by the farmer and his family. At present the Indonesian farmer, on the average, sells a somewhat greater share of his harvest (probably 20 percent) or does outside wage work. Nevertheless, the simple rural existence characteristic of most farmers precludes the necessity of a substantial cash outlay for the means of subsistence.

Agricultural production of the smallholder centers around rice, but corn, cassava, sweet potatoes, sago, peanuts, and soybeans are of considerable importance as are numerous vegetables and fruits. Cash crops include many of the export products, rubber being of particular importance.

Farming on smallholdings, which average about 2 or 2.5 acres on Java, is generally carried on with primitive implements and with little use of fertilizer. The crops frequently are grown in a complex rotation built around rice, which is produced in irrigated fields (*sawahs*) wherever the water supply is sufficient for this method. Intensive irrigated cultivation with double cropping of rice is common on Java, Madura, Bali, and Lombok. Many crops, including rice, even on these islands, however, are grown in dry fields; in Sumatra and Kalimantan sawah cultivation is confined to limited areas. In parts of the Outer Islands the most prevalent practice is shifting (*ladang*) cultivation. A farmer clears a bit of the jungle or bushland by burning, and then plants crops. Little effort is made to keep the land cleared and after several years, when it has become overgrown, it is abandoned. The farmer then shifts to a new location and repeats the land-clearing process.

Estate Agriculture

Estate agriculture, which became highly developed in the Netherlands Indies in the period 1870–1930,[2] is an important feature of the present Indonesian economy, but the area under active estate operation is only about two-thirds that of the prewar period. As of 1953, the Ministry of

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[1] This figure is based on 1938, which may be considered normal for prewar years. No official data are available for postwar years, but the total cultivated area is considered to be of this general magnitude. New land has been cleared for food production and rubber acreage is above the 1938 level, but the reduced acreage of other crops probably offsets these increases. Some recent data, however, place the cultivatable land at only 32 million acres and that under cultivation at about 27 million acres.

[2] The Agrarian Act of 1870 paved the way for rapid development of estate agriculture by providing for long-term leases or concessions. Over a period of years, especially from 1905 to 1930, a flow of Dutch, English, American, Belgian, and French capital went into estate production of the Netherlands Indies. As of the immediate prewar period there were about 2,400 estates occupying an estimated 7,260,000 acres.

Agriculture reported 1,280 estates in operation, with a total area in production of about 1,963,000 acres. The disturbed conditions of the postwar years have not been conducive to full rehabilitation or to the expansion of estate agriculture. Some of the estate land has been redistributed to peasant cultivators and some has been taken over by native squatters.

The prewar estate economy provided efficient management in the cultivation of export crops. It cleared and opened up new land and produced a major part of the country's foreign exchange earnings. On the whole, however, it appeared to have brought few direct benefits to the native population and this situation helps to explain the strong opposition that has existed since independence to the return of estate enterprises. To date the Indonesian Government has not reached basic decisions regarding the permanent status of estate cultivation. Some leaders realize, however, that in view of Indonesia's acute shortage of capital and technicians, foreign-owned estate agriculture is indispensable for the further development of the country's industrial resources.

Estate agriculture is characterized by large-scale operations under foreign management and is generally identified with the cultivation of a single crop. Hired labor is used and advanced agricultural practices are generally followed.

Although some 30 crops are produced on estates, nine products—rubber, tobacco, sugar, palm oil, hard fiber, coffee, tea, cacao, and cinchona—are of greatest importance. In prewar years palm oil, sugar, cacao, cinchona, and hard fiber exports were almost exclusively estate products; tea and tobacco were primarily estate grown though a considerable quantity of smallholder tobacco was also produced; rubber and coffee were produced about equally by estates and smallholders. Some of the estate crops—rubber, coffee, tea, cacao, and cinchona—are grown in upland areas of Java unsuitable for irrigated rice cultivation; in less densely populated Sumatra rubber is grown on lower land. Sugarcane and tobacco compete with native food crops; with pressure for smallholder cropland in the postwar period, the future of sugar and tobacco estates is open to question.

Most of the estates are on Java and Sumatra, only a small number being scattered throughout the other islands; as of the immediate prewar period, 43 percent of the total estate area was on Java and 51 percent on Sumatra. Estates on Java average about 2,200 acres and those on Sumatra, where land is more abundant, more than 5,000 acres.

Most of the estates are worked with hired labor, obtained locally in densely populated Java but brought in for Sumatra and the other islands.[3] For some of the hill crops—rubber, coffee, tea, cacao, oil palm, and cinchona—the estates obtain labor from landless peasants and from owner-cultivators who supplement their income by occasional outside work. For sugarcane and tobacco a different arrangement is frequently made; estate operators lease land for a single growing season from Indonesian farmer-owners who contract to work their land.

[3] In most cases estate laborers have been brought into Sumatra and the other islands from Java, but in the prewar years considerable numbers were also imported from other countries, particularly China.

MAJOR AGRICULTURAL PRODUCTS

Principal Food Crops

Rice, the economic foundation of native agriculture, is the staple food in the Indonesian diet.[4] Corn, cassava, sweet potatoes, peanuts, and soybeans are the principal secondary food crops. The total production of these six food crops in 1954 was slightly above that of prewar years; rice production was about 10 percent higher and only cassava and sweet potatoes were below prewar levels (table 4). Since the population had increased by some millions from 1937 to 1954, however, food availability is below that of the prewar period—recent estimates indicate that it may be about 10 percent below prewar levels.

Table 4.—Production of Major Food Crops, 1937 and 1952–54

[In thousands of metric tons]

Crop	Java and Madura					Outer Islands [1]		
	1937	1952	1953	1954	1954 as percent of 1937	1952	1953	1954
Rice: [2]								
Irrigated	3, 682	3, 886	4, 120	4, 471	109	1, 897	2, 206	2, 231
Nonirrigated	223	114	141	193	137	490	563	666
Corn, shelled	2, 037	1, 204	1, 303	2, 084	160	433	512	584
Cassava roots	7, 637	5, 088	6, 468	6, 400	99	2, 448	2, 100	3, 043
Sweet potatoes	1, 182	1, 260	1, 231	1, 053	86	1, 031	945	885
Peanuts, shelled	181	128	164	202	123	47	59	71
Soybeans, shelled	269	266	275	361	131	20	32	40

[1] Comparative prewar data for the Outer Islands are omitted since 1937 data are incomplete.

[2] The rice figures given here do not agree with those in table 5. For 1954, for example, the total Indonesian production here is 7,561,000 tons whereas table 5 gives a lower figure. Other sources indicate still lower figures for 1954, or about 7,100,000 to 7,200,000 tons.

Source: Based on data from Central Bureau of Statistics and the Service for Indigenous Agriculture as reported in Bank of Indonesia, *Report for the Year 1954-1955.*

In the postwar period the Indonesian Government has placed great emphasis on achieving self-sufficiency in rice production. Production rose steadily after 1951 and is now considerably larger than the prewar output (table 5). With the increased production, imports, which amounted to more than 750,000 metric tons in 1952 and 371,000 in 1953, were reduced to 259,000 tons in 1954. Although rice output in 1955 was expected to have approached the needs of the population, it was

[4] Although rice is generally the staple food, other foods are staples in certain areas. Sago is the main food in the Moluccas. In some areas of East Java, Timor, and parts of Sulawesi and Lombok, corn is the staple food. Corn mixed with rice is the chief food in parts of East Java and Madura.

somewhat lower than in 1954, largely because of unfavorable weather conditions, and imports were necessary.[5]

An estimated 17 million acres are in rice cultivation, the acreage increasing by about 3 percent per year in the past few years. The larger production results both from additional ricelands, principally in Sumatra and Kalimantan, and from increased double cropping, primarily in Java.[6] Although the gains in the Outer Islands[7] have been sizable, Java's irrigated rice cultivation supplies about two-thirds of the total. Opportunities for further extension of the rice area in Java are limited; there is little unused land suitable for irrigation, more than half the cultivated land is already double cropped, and much of the forest area has been seriously denuded.

Table 5.—Indonesian Rice Acreage, Production, and Yield, 1937 and 1951–55

Year	Harvested area (hectares)	Production [1] (metric tons)	Yield per hectare (kilograms)
1937	6, 230, 000	6, 221, 000	998
1951	6, 100, 000	6, 086, 000	998
1952	6, 325, 000	6, 420, 000	1, 015
1953	6, 570, 000	6, 798, 750	1, 035
1954	6, 728, 000	7, 472, 000	1, 096
1955	n. a.	[2] 7, 100, 000	n. a.

n. a. Data are not available.
[1] Milled equivalent.
[2] Estimate.

Sources: Statistics for 1937 and 1951–53 from Indonesian Ministry of Agriculture; 1954 data from Food Supply Board (Jajasan Urusan Bahan Makanan).

In addition to the six main food crops (see table 4), an estimated 2.5 million acres of minor annual crops are grown by native cultivators on Java and Madura; these include such root crops as potatoes, arrowroot, and taro, as well as pulses. Important food contributions are also made by the house compounds (*kampongs*), which surround most native dwellings. These kampongs are planted to a wide selection of vegetables and fruits; beans, cucumbers, gourds, melons, yams, bananas, papaya, jackfruit, mangosteens, rambutans, pomelos, and mangoes are among the crops raised.

Principal Commercial Crops

Before World War II most of the export crops were products of estate agriculture although the long-run trend was in the direction of an increasing share from native smallholders. In 1925 estates accounted for about 75 percent, and native agriculture 25 percent, of the value of total agricultural exports; in 1938 the figures were about 60 and 40 percent. In postwar years, however, smallholders have produced the major share of commercial crops. This change has been due, in a considerable degree, to the increased production of rubber by smallholders. Whereas in prewar years this important commodity was produced in about equal proportion by estate and native growers, smallholder production now far surpasses estate output.

With many difficulties besetting estate agriculture in the postwar period and high world prices for a number of the export products, native producers have capitalized on the situation by harvesting both their own and, to a considerable extent, estate-planted commercial crops as well. Rubber, tobacco, sugar, copra, palm oil, coffee, tea, cacao, hard fibers, kapok, cinchona, and spices are the major commercial crops.

Rubber.—As an export commodity, rubber is Indonesia's most important single product. In the immediate prewar period it accounted for about one-fourth of the value of all exports and the same position was maintained in the early postwar period. Soaring rubber prices in 1950 increased its relative importance and in 1951 and 1952 rubber accounted for about one-half of Indonesia's exports. In 1953 and 1954 rubber constituted, by value, about one-third of total exports. About 42 percent of the world's natural rubber in recent years has been from Indonesia.

Before the war the planted area on rubber estates was 1,557,000 acres, of which about 40 percent were in Java, 50 percent in Sumatra, and the rest in Kalimantan and East Indonesia. From 1942 to 1952 losses in estate area resulting from war, civil unrest, and other causes amounted to several hundred thousand acres so that, as of 1952, the total estate acreage was about 900,000.

Production of estates in 1953 amounted to about 304,000 long tons; in 1954, 282,500 tons; and for 1955, 261,000 tons (preliminary). See table 6.

Table 6.—Production and Exports of Indonesian Rubber, 1935–39 Average and 1948–55

[In long tons]

Period	Production			Net exports [1]
	Estate	Smallholder	Total	
1935–39 average	186, 850	167, 513	354, 363	338, 860
1948	101, 743	330, 606	432, 349	431, 982
1949	169, 145	263, 851	432, 996	422, 076
1950	175, 127	521, 345	696, 472	691, 711
1951	222, 534	591, 872	814, 406	793, 750
1952	294, 468	456, 026	750, 494	749, 073
1953	304, 215	390, 335	694, 550	673, 983
1954	282, 526	456, 144	738, 670	728, 670
1955 [2]	261, 345	472, 441	733, 786	721, 786

[1] Includes unreported exports not listed in official trade statistics of Indonesia.
[2] Preliminary.

Sources: *Rubber Statistical Bulletin*, published by Secretariat of the International Rubber Study Group, London, for 1948–55 data. Prewar data are also based on International Rubber Study Group material.

[5] Although official statements early in the year indicated no rice imports were expected in 1955, later in the year it became evident that imports of 100,000 tons would be required, and near the end of the year it became apparent that imports would be 2 or 3 times that amount.
[6] The use of improved seeds is an additional factor in some areas.
[7] Outer Islands, a term commonly used in the prewar period, refers to all of Indonesia except Java and Madura.

Estate production in recent postwar years has been much smaller than smallholder production; in 1955 smallholder output was 472,000 tons compared with 261,000 from estates.[8] Some of the smallholder rubber in postwar years has been obtained, however, from estate plantings tapped by squatters or has been stolen from the estates.

For many years the estates have had their own producer associations and these have pioneered in the field of scientific research. Rubber yield has been considerably increased, the average now being about 560 pounds per year per acre. New plantings using select high-yielding seedlings and bud grafts could result in much higher yields over a period of years, but most of the estates are replanting only limited areas owing to the uncertainty of future estate operations.

Smallholder methods of planting, maintaining, and tapping trees and preparing latex are generally inferior to those practiced on the estates. The amount of rubber derived from a smallholder's plot depends primarily on the current market price. Many native farmers raise food crops as well, and use rubber simply as a cash crop to augment their incomes. When prices are very high, farmers may neglect their field crops and concentrate on rubber; they use the cash income to obtain rice instead of growing corn and cassava, which they consider less desirable foods. When the market price of rubber declines, however, the commercial crop may be entirely or partially abandoned, and the farmers turn to increased production of their families' food supply.

Yields received by smallholders are much lower than those of the estates; the average grower pays relatively little attention to the maintenance of his grove. To a degree the smallholders have received the benefit of the long years of rubber experimentation carried on by the estates and the colonial government. They have been aided by the distribution of selected seed, by schools for tappers in some of the rubber districts, and by the development of improved methods of latex preparation. Among the more progressive smallholders these improvements have taken hold, but large numbers of farmers operate in the same manner as before and are attracted to rubber production only in relation to price.

The Indonesian Government has proposed on several occasions in recent years the formulation of a world plan to stabilize the price of rubber. However, these proposals have not gained general acceptance and no international action has developed.

Tobacco.—For a long time Indonesia was a major tobacco producing and exporting country, but economic dislocations of World War II and since then have adversely affected the industry. Although production has increased considerably in the last few years, it seems unlikely that Indonesia will regain its prewar position in the foreseeable future. The pressure of population has diverted much of lowland tobacco fields to food crops and some of the estate areas suited to special export tobacco are particularly troubled by squatters. Production of tobacco in 1954 was 7,200 tons; output in 1955 was reportedly lower because of unfavorable weather.

Tobacco is cultivated both by estate growers and smallholders. The area devoted to estate production as of 1951 was estimated at about 37,000 acres. The principal estates are in the northeastern part of Sumatra, where Deli wrapped tobacco is produced, and in the Besuki and Vorstenlanden districts of East and Central Java, where wrapper, binder, and filler tobacco are produced, together with a native-grown leaf used for pipe tobacco and domestic cigarettes.

The Deli cigar wrapper tobacco is considered superior to all other types of tobacco grown in Indonesia. Not only is this district, which surrounds the city of Medan, especially suited by soil and climate for the production of this type of tobacco, but many years of care and scientific research have gone into the tobacco production of the area. In prewar years 48 tobacco plantations in Sumatra with concessions of 645,000 acres were all controlled by 7 companies, of which N. V. Deli Maatschappij was the largest.

Although the tobacco land is extensive because of the method of fallowing (tobacco is grown on the land 1 year out of 8), only a small part of the estate is used at one time. During the war much of the estate area was used by Indonesians to grow food, and since the end of the war the estates have been trying with little success to evict Indonesian squatters. Most of the estates are limiting their planting since some of leased land has been occupied by squatters, and there is as yet no assurance regarding the renewal of leases, many of which are reaching their terminal dates. The future of Sumatra estate tobacco is, therefore, not clear.

Estate production in Java in prewar years was carried on by about 40 estates; some operated on long-term leases from native sultanates and others on land rented from native cultivators—the native owner then becoming a sharecropper on his own land. In contrast with the fallowing system used in the Deli area of Sumatra, in both the Vorstenlanden district of Central Java and the Besuki district of East Java tobacco is grown on the land once in 2 or 3 years, and in other years the local inhabitants grow food crops. Virginia leaf tobacco is grown in parts of Java, and cultivation of this type has been expanded in recent years. Estate tobacco production in Java, as in Sumatra, has been harassed with difficulties in postwar years. Civil disturbances, banditry, and labor unrest have marked much of the period.

Smallholder tobacco is grown throughout the country on hilly land or as a secondary crop following the sawah rice harvest. Yields are low

[8] Figures are those of the International Rubber Study Group, which bases smallholder production on reported exports of smallholders plus estimated nonreported exports.

compared with those of the estates. The exact total area of smallholder tobacco is not known, but it is considerably greater than that of the estates. In 1954 the harvested area was estimated at 284,000 acres, which is somewhat below that of prewar years.

Sugar.—Sugar, one of the major prewar export crops of Indonesia and an important factor in Java's economy, is being produced in increasing quantities in the past few years, but output is still far below that of the prewar period.

Estate production of sugarcane is carried on in East and Central Java on irrigated land generally obtained by short lease from individuals or from local communities which own land in common. Sugar is planted in rotation with food crops so that it is grown on the same ground only once in every 3 years.

The 1953 sugar production was about 620,000 metric tons, that of 1954, 714,000 tons; and, according to the Indonesian Ministry of Agriculture, that of 1955, an estimated 850,000 tons. The average 1937–39 output was 1,463,000 tons. The Indonesian Government has encouraged exports of sugar by restricting domestic consumption. In 1953, about 92,000 tons were exported and, in 1954, 216,000 tons. For 1955, exports of 250,000 tons were expected. However, because of the increased population and the resultant need for more rice and other foods for local consumption, it is unlikely that in the foreseeable future the exportation of sugar will again reach the prewar figure (1,186,000 tons for 1937–39), and many doubt that it will reach half that amount.

In addition to the pressure on sugar land for food production, the wartime destruction of sugar factories and the diversion of cane to small portable factories which produce less sugar from a given weight of cane have been factors in the reduced output. Further rehabilitation of estate operations depends on capital outlay for reconstruction and modernization of mills, but the estate owners have not found conditions conducive to new investment in plant and equipment. Moreover, estate managers report that continually increasing rental rates are becoming a problem in profitable production.

Copra.—In prewar years Indonesia was considered the world's largest producer of coconuts and ranked next to the Philippines as a leading exporter of copra. Today, production is probably less than in prewar years although data are available for only a part of the total output. The coconut is a popular local food and the pressed nut meat provides the major vegetable oil in the Indonesian diet.

According to official data, production in 1953 amounted to 461,000 metric tons and in 1954, 441,000 tons. Exports for these years were reported at 240,000 and 297,000 tons, respectively. In the first half of 1955 production was reported at 188,000 metric tons, a drop from the 1954 level. These figures, however, cover only the purchases of the Copra Foundation (Jajasan Kopra), which operates in East Indonesia and Kalimantan. Copra produced in Sumatra and Java is free from Copra Foundation authority and may be sold freely in the domestic market. In addition, large amounts of copra are known to be smuggled from Sumatra to Malaya and from East Indonesia to the Philippines and British Borneo.

Coconut cultivation is almost exclusively a smallholder operation; smallholders reportedly account for 95 percent of the total output. Estate production, however, with its more scientific methods and intensive cultivation brings higher yields. East Indonesia—Sulawesi, the Moluccas, and the Lesser Sundas—is the major producing area, although most of Indonesia has natural conditions favorable to coconut cultivation.

Palm oil.—Unlike the production of copra, Indonesian output of palm oil is almost exclusively from cultivated palms grown on foreign-owned estates. Virtually all of the palm oil originates in Sumatra, the center of the industry being the northeastern coastal area with about 30 estates; in prewar years the number of estates was larger and the area planted was greater than at present.

Production in recent years has been about 160,000 metric tons of oil and 42,000 tons of palm kernels, compared with some 220,000 and 48,000 tons, respectively, in prewar years. Recovery has been good considering that during the wartime occupation and the period of revolution estates were neglected, many oil palms were uprooted, and some of the oil-pressing factories suffered heavy damage. Palm oil, which is used largely for margarine and soap, was shipped to the United States in considerable quantities in prewar years, but subsequently only small amounts have moved in this trade.

Coffee, tea, and cacao.—These three products, grown in Indonesia for many years, are of minor but varying importance in the economy. Coffee and tea have been sizable foreign exchange earners but cacao production has contributed to the economy to only a very limited extent.

Coffee is produced both on estates and on smallholdings, and is often interplanted with another crop such as rubber. Just before World War II total production in Indonesia averaged about 124,000 tons a year, of which almost half was estate grown. Production, still below that of prewar years, was reported as about 60,000 tons for 1953–54 and at 55,000 in 1954–55 and forecast at 65,000 for 1955–56.

Estate production today is much lower than smallholder, in part because the full rehabilitation of estates has not been achieved on account of postwar unsettled conditions but also because some coffee stolen from the estates is marketed as native-grown coffee. Production is expected to increase over the next few years in view of new plantings made within the last 4 years. Coffee exports in 1953, amounting to 34,000 tons, were about 40 percent of 1935–39 shipments, but it is probable that

additional quantities were smuggled out of the country. Reported exports in 1954 were 38,000 tons.

Tea, essentially an estate crop but also grown by many smallholders, was produced in sufficiently large quantities in prewar years to place Indonesia as the fourth producer in the world. Uplands of Java and Sumatra at elevations of 1,000 to 6,500 feet are the main producing areas. During the war tea plantings on some of the estates were uprooted and in many areas food crops and other crops replaced tea. Postwar recovery has generally been slow, especially before 1952.

Not only was the wartime destruction extensive, but blister blight which appeared on some of the estates had to be brought under control. Moreover, some of the estates have had to contend with labor unrest during part of the postwar period. By 1953 Indonesia was still producing less than half the prewar level (the 1935–39 average was about 77,100 metric tons). In 1954, however, considerable gains were reported; estate production for the first half of the year was about 20 percent above that of the comparable period of 1953 and smallholder output rose 70 percent. Exports in 1954 amounted to about 45,000 tons, a considerable increase from 33,000 tons in 1953. With production in 1955 reported at about 55,000 tons exports are expected to show a further increase.

As a result of rising world tea prices and increasing world consumption the general outlook for this industry for the near future appears brighter. However, some observers familiar with the trade look to a leveling off at about 60,000 tons, and do not foresee production increases to even prewar levels. Relatively low labor production and higher labor costs and the old age of the present plantings preclude large increases on estates. Producing estates now number about 175, compared with 275 prewar. Smallholder production, never very large, has recently gained, mainly because of severe overharvesting rather than because of increased plantings.

Output of cacao beans before the war averaged about 1,600 tons a year, almost all being produced on estates in Central Java. Production is still below the prewar level, owing in part to loss from neglect or plant diseases during the war and early postwar period. Exports have been lower not only because of reduced production but also because of the greater consumption in the domestic candy industry resulting from curtailed imports of confectionery products.

Fibers.—Hard fibers have been the major part of Indonesian fiber output; the principal types are sisal, which comprises about 90 percent of total production, cantala, and abaca. In addition to these three hard fibers, small quantities of soft fibers—roselle and kenaf—are grown. Except for a small amount of cantala all fiber production is on estates. Recently, under auspices of the Bank Industri Negara, a Government bank, experimental plantings were made of ramie.[9] Cotton has not been raised in any sizable quantities, but a plan has been put forward for mechanized production.

The sisal plantations, located in both Java and Sumatra, provided in the immediate prewar years about one-third of the world's export supply of sisal. Total production of the three hard fibers was about 84,000 to 95,000 tons in the years from 1934 to 1938. During the Japanese occupation fiber acreage was increased (largely at the expense of sugar and tea), but the plantings were neglected for several years after the war's end. Production was estimated at only 27,400 tons in 1953 and 30,700 tons in 1954. Extensive areas which had become too old for efficient production have been abandoned and, because of labor and squatter difficulties and uncertainty regarding the Government's future policies, the planting of new areas has been postponed.

Kapok, which may be considered as a fiber although used primarily as stuffing and as an insulating material, is produced almost entirely by smallholders. Kapok trees are planted around houses, villages, and along roads, but seldom occur in regular holdings. Central and East Java are the major areas, probably producing about 85 or 90 percent of the total. The industry's expansion is being encouraged through gifts of seeds to farmers, and it is estimated that by 1958 production may be around prewar levels of about 20,000 tons. In 1953 the crop harvested was only about 8,000 tons. Exports of ginned kapok in recent years have amounted to 4,800 to 5,700 tons.

Cinchona.—Before World War II about 90 percent of the world's supply of cinchona bark, from which quinine is extracted, was produced in Indonesia. In 1935–39 output was about 11,200 tons and exports of bark were 7,040 tons and of quinine, 170 tons. Unlike their treatment of many estate products, the Japanese encouraged cinchona production, and output was large during the war but has since declined.

The industry's difficulties stem from development of a wide range of synthetic antimalarial drugs and from competition with other areas, primarily the Belgian Congo. Estate production in 1953 was only 1,200 tons and smallholder production, about 6 tons. Total 1954 production (dry bark) was reported at 1,770 tons.

Pepper and spices.—Indonesia was the source of about 85 percent of the world's prewar pepper supply and was an important supplier of cinnamon (cassia), nutmeg, and mace. Spice production, which is largely a smallholder operation, has in recent years been far below prewar levels.

Production of black pepper (primarily from South Sumatra) and white pepper (mainly

[9] These attempts appear to have been successful enough on a small scale to warrant the importation of processing machinery valued at 20 million rupiah in 1955.

from the island of Bangka) amounted to about 55,000 tons in 1938. During the war many pepper vines were uprooted and the area used for food crops; and only in the past few years has production of pepper (both black and white) exceeded 15,000 tons. Output of black pepper in 1955 is estimated at about 8,000 tons and white pepper at 5,000 tons—a production lower than in the two preceding years because of adverse weather conditions.

Cassia production, centered in western Sumatra, has been increasing and 1953 production was about double that of 1938. Indonesian nutmeg and mace, both products from the seed of the nutmeg tree which grows in the forests of the eastern islands, accounted for about 70 percent of the world's production in prewar years. Output in 1953 was reported at 2,950 tons and in 1954 it was an estimated 3,800 tons, compared with 4,800 tons in 1938. Clove production has not been sufficient since the war to meet the increased domestic demand (largely for use in native cigarette manufacture), and cloves are imported.

Livestock

While crop production is the principal means of agricultural livelihood, the raising of livestock is important. The industry is entirely unlike that prevailing in Western countries, however, and consists chiefly of rearing draft animals for agricultural and transportation uses. The production of hides and skins and meat is of secondary importance, and commercial dairying is negligible.

The total number of animals was estimated at about 20 million in 1954, cattle, buffaloes (carabao), horses, goats, sheep, and pigs being the principal types. Large numbers of livestock were destroyed during the wartime occupation but the total is now about 15 percent above prewar, and is increasing. The poultry population, estimated at about 60 million chickens and 12 million ducks in 1954, is still below prewar numbers.[10] Livestock is unequally distributed. Java, Madura, Bali, and Lombok, the most densely populated islands, have about 70 percent of the total.

As part of its program to improve livestock, the Government has 62 cattle-breeding stations and 7 artificial insemination centers, and some 50 poultry-breeding stations.

LAND OWNERSHIP, FARM PRACTICES

Both the pattern of land ownership, which is somewhat different from that prevailing in other Asian countries, and the agricultural practices followed are important to potential investors in agricultural enterprises.

Land Ownership

The basic act on land ownership in Indonesia dates from the colonial period. The Agrarian Law of 1870[11] established the policy of Government protection of land ownership for both individually owned and communally owned land of the native population. Sale of such lands to nonnatives was prohibited, thus preventing legal ownership of land in Indonesia by any foreigner.

Under Indonesian law there are two types of land rights, i. e., native and European rights. European rights are held by foreigners who hold title to land in the Western sense of the word, and who may pass title by deed to other foreigners. Only about 1 percent of land in Indonesia is held under such rights and in past years the Government has been buying back some of this land.

The native rights are governed by traditional Indonesian law (*adat*), which recognizes both communal possession and hereditary individual ownership. Hereditary individually owned land can be mortgaged or sold only with the approval of the village or other local unit to a narrowly defined group. Natives are permitted to lease land to nonnatives only by transactions supervised by the Government. If a farmer abandons his land he loses the right to it unless he has planted fruit or other trees on it, in which case he retains an individual property right as long as the trees survive. Holdings are not registered except in Java, where they are registered for land-tax purposes.

The rights provided natives under this basic land law, together with the firmly implanted Indonesian concept of communal property, explain the general lack of farm tenancy. Although this lack has often been pointed out as providing a better situation than exists in many other countries, numerous Indonesian landowners through short lease or debt actually have no effective control of their holdings and, in some areas, their status is analogous to that of tenants. Moreover, large numbers of Indonesians, estimated at about 25 percent of the agricultural working force on Java in prewar years, were landless wage workers who were primarily employed as estate laborers.

The Agrarian Law also provided for long-term leases or concessions. It is estimated that about 2 million acres of land are now held under such concessions, most of it by foreign-owned companies. Many of these leases have expired and are being continued only on a temporary basis; many other leases will expire within the next 5 or 10 years. Although the Indonesian Government's policy regarding the future of these large holdings has not yet been decided, some political

[10] Some recent figures give the total number of chickens as 80 million and ducks as 17 million.

[11] This basic law, the associated Land Lease Ordinance of 1918 (establishing conditions for leasing sugar and tobacco land), and the Factory Ordinance of 1898 (prescribing ratios to be maintained between food and export crops) still remain in effect.

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groups advocate redistribution of the land to Indonesian farmers.

Farm Practices

Irrigation.—In Java, irrigated land accounts for about 40 percent of the total cultivated area and in Bali, Madura, and Lombok irrigation is commonly used. On the other islands much of the land is unirrigated although rice is generally grown with irrigation. Use of irrigation and the building of extensive small-scale works on Java are related in part to the dense population; a dependable irrigation system has permitted more widespread double cropping to help assure a supply of food.

The most common method is river water irrigation using gravity flow. With this system, silt, carried by the rivers in large quantities, remains on the soil and fertilizes it. Reservoirs and wells are used, however, in some areas. Irrigation has been to a considerable degree under Government supervision and control since prewar years.

A number of ambitious irrigation projects have been proposed and studied in the postwar period, but none have progressed beyond the blueprint stage. Among these projects are (1) the multipurpose development project proposed for West Java which would provide water for double cropping rice on a large area in northwest Java, and (2) plans to provide water for extensive areas in Sumatra, Kalimantan, and East Indonesia.

A recent plan calls for an increase in the irrigated area of 876,000 hectares by 1959. Actual Government activities in the postwar period have been confined largely to repairing and servicing the existing irrigation systems (mostly on Java) and to encouraging cooperative projects by farmers at the local level.

Fertilizing practices.—The use of fertilizer such as practiced by the average Japanese farmer is virtually unknown to the Indonesian farmer. Soil fertility is maintained largely by nutritive substances in the water irrigating the fields, but this method does not sufficiently compensate for the lack of fertilizers and is considered to be the main factor in the lower crop yields obtained in Indonesia. Through the educational work of the Extension Service, the use of commercial fertilizer is now increasing in Indonesia and the practice of green manuring is also becoming more common.

The principal demand for fertilizers has been on the estates, especially the sugar holdings. In the prewar period 1936–41 the average annual consumption of fertilizers was 122,700 tons; in the period 1947–52 it was only 53,000 tons. By 1953 imports of fertilizers had increased to 101,000 metric tons and in 1954 they amounted to 105,000 tons.

Use of farm machinery.—Native agriculture is carried on mainly with human labor or draft animals, using crude plows, harrows, *patjols* (hoes), choppers, bush knives, and other hand tools for clearing and cultivating land and harvesting crops. The use of farm machinery is confined largely to the foreign-managed estates, principally for clearing land preparatory to planting rubber trees, oil palms, fiber plants, tea, and coffee, but also for cultivating such crops as sugarcane and tobacco.

Farm machinery use is restricted by physical and economic characteristics of Indonesian agriculture. While great interest is shown in mechanization, its possibilities are limited. Further expansion in the use of farm machinery may be expected, but it is likely to be relatively slow and on a selective basis. Even the cultivation of various estate crops is generally considered as not susceptible to a high degree of mechanization.

As of 1951 the Ministry of Agriculture reported only 250 tractors in Indonesia, but the number has increased considerably. In the last few years cooperative tractor pools have been established in several places, providing the use of machinery to local farmers.[12]

AGRICULTURAL PROBLEMS

Many of the problems facing Indonesian agriculture today are essentially like those existing before the transfer of sovereignty. The Indonesian Government thus far has tended to continue policies and programs initiated during the colonial period, with modifications and additions to place greater emphasis on economic and social improvements.

Production Difficulties

The basic agricultural problem facing the Government is the satisfactory production and distribution of a food supply adequate for an ever-increasing population. Production of many of the principal food crops is only now reaching the prewar level of output. Precise figures on population numbers are not available, but on the basis of the estimated present rate of increase (1.5 percent per year), it is likely that the food available per capita is somewhat lower than in prewar years.

Since it is considered of utmost importance that food supplies keep pace with the population, the Indonesian Government has placed primary emphasis on increasing food production (primarily rice). In 1954, it announced a 5-year agricultural plan designed to make the country self-sufficient in food and to increase agricultural productivity generally.[13]

Estate agriculture is faced not only with vari-

[12] United States technical assistance funds have been used in establishing such tractor pools.
[13] See chapter IX for additional discussion of the 5-year plan.

ous immediate problems in carrying out its operations but also with the long-range question as to its future. The present major operational problems revolve around such matters as the regular procurement of necessary supplies and equipment in view of foreign exchange stringencies, and the changing labor relations with workers. Other problems faced by estate managers during the postwar period include rehabilitating neglected or destroyed areas and removing the threat to security. Long-term problems arise in connection with expiration of estate leases and settlement of the squatter issue.

Squatter Situation and Land Leases

During the Japanese occupation large areas of uncultivated estate lands, especially in Sumatra but to a lesser extent in Java, were turned over to farmers for the production of foodstuffs. The troubled conditions that arose at the end of the war made it impracticable for many planters to resume operations and, as a result, additional thousands of acres were taken over by native squatters. It is estimated that there are now about 280,000 squatter families, about equally divided between Java and Sumatra.

Throughout the postwar period the Government has been pressured for a clear-cut settlement of the squatter situation. On the one hand, squatter groups, in some cases backed by communists, have demanded outright grants of occupied land plus additional land. On the other hand, estate managers have attempted to get Government assistance to remove the squatters. In attempting to prevent further takeover by squatters several "hold fast" orders have been issued by governmental agencies, the most recent of which was included in the "Emergency Land Law" of June 1954. Following the various "hold fasts," however, additional squatters have occupied estate lands. Moreover, no final settlement has been reached as to what should be done about squatters who settled at earlier dates.

The questions of new leases for estate lands, the amount of rentals, and the conditions of tenure are closely related to the squatter situation. Without some basic settlement of these issues, estate production can be expected to remain at levels below those of prewar years. A number of estates have remained inactive since the war and some companies continue to postpone plans for clearing, planting, and replanting because of these uncertainties.

Forestry and Fishing

Forest and fishing activities, although far less significant than agriculture and mineral production in the Indonesian economy, are important occupations for many persons, particularly those on a subsistence basis. Relatively limited commercial exploitation and little foreign investment have taken place in these fields, but the resources suggest a potential as yet incompletely realized.

EXTENT AND TYPES OF FOREST

Indonesia has large forest resources and, except in Java and Madura and locally on other islands, has made relatively little use of them. However, large parts of the forested territory are not yet opened up and other parts are difficult of access.

Distribution of Forested Area

Some 240 million acres, or about two-thirds of the land area of Indonesia, are in forests.[1] It is estimated that of the total forested area, 74 percent is in Kalimantan and East Indonesia, 24 percent in Sumatra, and 2 percent in Java and Madura.

Distribution on the different islands varies widely. In densely populated Java forests account for only about one-fifth of the land area and the forests are in scattered tracts. Madura is almost completely deforested. In the Outer Islands, on the other hand, most of the land is forested and the forested areas are more continuous. For Sumatra the proportion of land in forest was estimated at 62 percent in 1939; for Kalimantan, 77 percent; and for East Indonesia, 66 percent (table 7). More recent data are lacking but the overall percentages have probably changed little.

On the more developed of the Outer Islands—Sumatra, Sulawesi, and the Lesser Sundas, where population density averages 20 to 35 persons per square mile—the forest cover accounts for about 60 percent of the land surface. In these regions perhaps 10 to 15 percent of the total surface is in secondary growth (on land once used for cultivation) and 45 to 50 percent is still in virgin forests. In the less developed Outer Islands—Kalimantan and the Moluccas, where the population is sparser—the percentage of area covered with virgin forest is larger.

Table 7.—Forested Area in Relation to Total Land Area, as of 1939 [1]

[In square kilometers]

Item	Java	Sumatra	Kalimantan	East Indonesia [2]
Land area	132, 174	473, 606	539, 460	759, 105
Forest area	30, 572	292, 400	416, 000	498, 600
Percent of land area	*24*	*62*	*77*	*66*
Reserved forest area	27, 122	72, 251	13, 823	17, 110
Percent of land area	*21*	*15*	*3*	*2*
Reforestation	4, 747	86	2	66
Percent	*18*	*0.1*	*0.1*	*0.4*

[1] Data with a comparable breakdown are not available for the postwar period, but the general distribution remains the same as in prewar years.
[2] Includes western New Guinea (West Irian).

Source: Based on data of the Indonesian Forestry Service (Djawatan Kehutanan)

In Indonesia, as in many other tropical areas, the forests are generally heterogeneous in character. Some 3,000 species capable of reaching a diameter of 14 inches are reported for the country as a whole and most areas have a considerable variety of species. Some woods, such as teak, ebony, ironwood, and sandalwood, have been well known in world trade for many years; others are almost unknown except locally.

Species of the genera *Dipterocarpus* (*damar rangas, lagan, kerning*),[2] *Shorea* (*meranti*), *Dryobalanops* (camphor), and *Hopea*, all of the Dipterocarpacae family, are perhaps the most important commercially. Some of these are related to Philippine mahogany.

Other trees yielding woods of commercial use include *Palaquim* species (*balam* or *suntai*), which furnishes good light-construction lumber; *Alstonia scholaris* (*pulai*), which produces a soft, easily worked wood good for interior construction; *Tetramerista* species (*punah* or *punak*), moder-

[1] Available estimates of forest area vary considerably, but are of the general magnitude indicated here. If western New Guinea (West Irian) is included (as in table 7), the total forest area is about 300 million acres. Since adequate forest surveys have not been made of most of Indonesia, estimates of the availability of commercial woods are lacking or deficient.

[2] The native names, which are commonly used in referring to Indonesian woods, are included here for only a few trees and the list is not complete. The nomenclature is particularly confusing because of the many languages and dialects.

ately durable strong wood; *Eusideroxylon zwageri* (belian), known as Borneo ironwood, a high-grade wood used for bridge construction and piling; *Sloetia* species (*damuli*, *tempinis*), known as Riouw ironwood, also used for heavy construction; *Diospyros* (ebony), which has been exploited in Sulawesi and the Moluccas and is reported to be almost exhausted; and *Santalum* (sandalwood), principally found in East Java, the Lesser Sunda Islands, and Timor.

Forest Types, by Area

Each island, and in the case of the larger islands each section, has a somewhat different arrangement and extent of forest types—related to topographic, soil, and climatic conditions. The types may, however, be illustrated by those of North Sumatra where six general types have been recognized. These are fairly representative of the forest types of the rest of Sumatra, are similar to the types in Kalimantan, and to a greater or lesser degree can be identified with the types of some of the other islands. Local variations occur, however, both as to particular species and the quantitative distribution.

The six general types described for North Sumatra are:[3]

1. Tidal belt of mangroves. In this forest zone, which occupies the tidal strip, mangrove trees are dominant and include several species of *Rhizophora*, *Bruguiera*, *Xylocarpus*, *Sonneratia*, *Ceriops*, and *Avicennia*.

2. Belt of nibung or nipa palms. The palm belt, occurring on fairly dry ground at the inner edge of the mangrove belt, in most areas is narrow. It is covered with palms and various broad-leaved evergreens. The typical tree is the nibung palm (*Oncosperma filamentosum*, also known as *Areca nibung*). Other palms include nipa (*Nipa fruticans*), sago (*Metroxylon sagus*), and coconut (*Cocus nucifera*). Among the broad-leaved trees are species of *Barringtonia*, *Hibiscus*, *Terminalia*, *Erythrina*, *Artocarpus*, *Macaranga*, *Ganua*, *Koompassia*, *Garania*, *Ficus*, *Horsfieldia*, *Compnosperma*, and *Xylocarpus*.

3. Coastal plain swamp forest (*paja*). The swamp forest, which in some parts of Sumatra extends back from the coast as far as the center of the island, is the forest zone which has been most utilized. It is under water during much of the year, being dry only during the dry season. This zone is generally a mixture of many species but Dipterocarpacae are the most important with *suntai*, *meranti*, *balam*, and *punak* of special importance for several districts of northern Sumatra.

4. Upland tropical forests. These forests are reported to contain more valuable woods than the lowland forests, but have not been utilized or investigated to the same extent, owing to the lack of transportation facilities. Dipterocarpacae are important here as in the coastal swamp forest, but other trees such as *Sloetia elongata*, *Tristania* species, *Cratoxylon* species and *Ochanostachys amentacea* are among the first-class woods reported for the northern Sumatran uplands.

5. Subtropical-Temperate Zone mountain forests. In much of this zone the original forest has been destroyed and extensive areas are open savanna with only scattered trees. In addition to some of the trees of the lower areas which extend into this zone there are such Temperate Zone trees as pine, conifers (*Dacrydium* and *Podocarpus* species), oak, and chestnut. The pine forests are largely confined to the highlands of North Sumatra.

6. Mountain mossy forests. This type consists of more or less dwarfed, stunted trees of no commercial value but important for the protection of watersheds.

No detailed breakdown by forest types is available for Indonesia as a whole, but about 10 million acres are grouped as mangrove forests, about 100 million acres as swamp and lowland forests, about 70 million as hill forests (100 to 500 meters above sea level), and about 125 million as mountain forests (above 500 meters).[4]

Most of the Indonesian forests are heterogeneous in character; nevertheless, several types of homogeneous stands exist which are particularly important for exploitation. On Java about a third of the forests are relatively homogeneous teak stands, most of which are now cultivated. These teak forests are reserved and under intensive, sustained-yield management. In the highlands of North Sumatra large natural stands of pine (*Pinus merkusii*) occur and in southern Kalimantan *Agathis alba* occurs in virtually pure stands as well as in mixed stands. These two softwoods appear to offer potentialities for pulp production.

FOREST PRODUCTS

Wood Production[5]

The local population makes considerable use of the forests, obtaining construction materials, firewood, and charcoal from them. Some of the wood is cut and collected by the families using it, but other production is on a commercial scale. Commercial production, which occurs throughout the country, is largely concentrated in villages along navigable streams, where the buyers—many being Chinese—take the products in return for advances in goods or money.

[3] Based on *Notes on Forest Resources of Sumatra*, compiled by W. N. Sparhawk, U. S. Forest Service. Undated typed report (probably about 1942 or 1943). Several subdivisions of some of the types are recognized.

[4] These figures are based on data that include western New Guinea.

[5] For discussion of the manufacture of wood products see chapter VII.

Large-scale commercial exploitation is limited to a few areas located primarily in the more accessible forest areas of Sumatra and Kalimantan. From the eastern part of Sumatra and the Riouw Islands, logs and some lumber firewood and charcoal have long been sold to the Singapore market by Chinese merchants who have been granted concessions.

Production reported by the Indonesian Forestry Service for recent years is shown in tables 8, 9, and 10. These figures, which are for quantities produced under general control of the Forestry Service, probably underestimate the actual output by a considerable amount. An obvious underestimation is the total for firewood and charcoal production. Most of this production comes from commercial woods, private yards, and estates and is therefore unreported.

Table 8.—Indonesian Timber Cut, According to Use, 1939 and 1950–54

[In thousand cubic meters, rough timber equivalent]

Year	Total timber cut	Lumber	Firewood	Charcoal
1939	4, 034	2, 010	1, 677	357
1950	2, 845	1, 319	1, 355	171
1951	2, 965	1, 332	1, 271	362
1952	3, 515	1, 706	1, 526	283
1953	3, 558	1, 644	1, 652	262
1954	3, 116	1, 452	1, 359	305

Source: Bank of Indonesia, *Report for the Year 1954–1955*. Based on data of the Indonesian Forestry Service (Djawatan Kehutanan).

Table 9.—Indonesian Timber Cut, by Area of Production, 1952–54

[In thousand cubic meters, rough timber equivalent]

Area	1952	1953	1954
Java and Madura	1, 901	2, 161	1, 735
Sumatra	1, 074	1, 018	909
Kalimantan	503	336	441
East Indonesia	37	43	16
Total	3, 515	3, 558	[1] 3, 116

[1] Total as given in source.

Source: Based on data of the Indonesian Forestry Service (Djawatan Kehutanan).

The exact number of commercial sawmills is not known but the approximate total is 100.[6] In addition, a large amount of handsawing is carried on throughout the islands. The Government's Forestry Service was operating eight sawmills as of 1955 [7] and the Government has proposed the establishment of other mills in recent years.

In the Javanese teakwood forests, which are Government controlled and managed, the timber is transported to assembling yards and most of it is sold publicly to sawmillers, dealers, and small consumers.

[6] In the immediate prewar years operating sawmills numbered 100 to 110.

[7] Based on a press-interview statetment of the head of the Indonesian Forest Service, March 1955.

Table 10.—Output [1] of Forestry Products, 1951–52

[Quantity in units indicated; value in thousands of rupiah]

Product	1951		1952	
	Volume	Value	Volume	Value
Timber 1,000 cubic meters	1, 254	93, 756	1, 668	175, 900
Firewood and charcoal millions of stacked meters	1, 693	19, 200	2, 100	42, 000
Shingles thousands	59, 546	5, 955	82, 671	12, 401
Bamboo 1,000 units	4, 500	4, 500	2, 623	2, 623
Other products [2]	n. a.	6, 957	n. a.	726
Total		130, 368		233, 650

n. a. Data are not available.

[1] These data and those of tables 8 and 9, which report the output from Government forests, grossly underestimate total Indonesian production. Production of firewood and charcoal has been estimated at 20 times, the production of bamboo at 10 times, and that of other products at about 15 times the figures shown here. Although complete data are not available for later years, 1954 production of firewood is reported at 915,000 cubic meters and charcoal at 12,000 metric tons.

[2] Includes rattan, resins, and other products.

Source: Based on data of the Indonesian Forestry Service (Djawatan Kehutanan).

Timber Consumption and Trade

Consumption data are considered inaccurate since much of the total forest output is not recorded. Based on the reported cut, estimated per capita consumption of lumber as of a few years ago was about 0.01 cubic meter; for the same year consumption in the United States was about 0.90 cubic meter. This low rate of lumber consumption, although admittedly an underestimation of the true rate, is indicative of the low rate of industrialization of Indonesia.

For Kalimantan and for most of Sumatra and the islands of East Indonesia the supply of timber is ample for local needs. Java, on the other hand, is not self-supporting and receives increasing quantities of logs and timber, mainly from Kalimantan.

Indonesia in prewar years exported a number of timber products to Western markets, of which teak, ironwood, and sandalwood are best known. Postwar exports have been relatively small, however. Wood exports were only 4,600 cubic meters in 1953 and 5,000 meters in 1954. In addition, considerable amounts of logs are sent to Singapore, particularly from Sumatra for use in the Singapore market. Some of the logs are returned to nearby Indonesian consumption centers as lumber, reflecting a lack of sawmilling capacity in this part of Sumatra.

Other Forest Products

Bamboo and rattan are important products of Indonesian forests, used both domestically and abroad. Also various gums and resins collected in the forests have commercial significance. Tannin (cutch) is gathered from the mangrove forests and essential oils are obtained from other forested areas.

Bamboo and rattan.—In Indonesia, as in many other parts of the Far East, bamboo is a mainstay in the daily life of many of the natives, providing the material for huts, rafts, bridges, and other construction. It has had little commercial exploitation, and only small quantities have been exported.

Rattan, on the other hand, enters into world trade. Exports are largely from Kalimantan and East Indonesia, particularly Sulawesi. In the latter area rattan is probably the most important single commercial forest product. Collection is made by natives who hunt out collecting grounds, cut the rattan (which is of several palm genera), and float it in bundles to coastal ports for shipment abroad. In recent years rattan exports have amounted to about 30,000 metric tons annually.

Gums and resins.—The gum and resin industry is of little overall importance to Indonesia, but in certain districts it constitutes a major source of income. The industry has existed for many years and has risen and fallen in response to general economic conditions and demand for the commodities on world markets. Since most gums and resins are forest products, collected at will, the output depends on whether or not collection proves remunerative in relation to other economic activities. In recent decades, particularly since World War II, the industry has met severe competition from various synthetic resins and from production of gums and resins in other countries.

Most important of the various gums and resins collected are jelutong and gutta-percha, damar, and copal. Others which have entered commercial trade include benzoin and dragon's blood. Pine resin, a product of some importance, is mainly used domestically.[8]

Jelutong is a rubberlike gum collected in swamp areas of southern Kalimantan and, to a lesser extent, South Sumatra. In prewar years these areas, with an annual average output of about 9,000 tons, supplied 50 to 60 percent of the world's requirements. Much of the Indonesian *paloja* was used before the war as an ingredient in chewing gum, considered a little inferior to Latin America chicle.

Gutta-percha, a gum obtained from trees of the Sapotaceae family, is produced mainly in Sumatra. Although partly an estate product (North Sumatra had several estates as of 1938), natives also gather it from forested areas. Its high resistance to acids and alkalis and its toughness have made it useful in various products.

Damar, used in waxes, paints, and varnishes, is obtained from the wood of certain trees of the genus *Dipterocarpus* of the western half of Indonesia, including Sumatra, Bangka, and Billiton and parts of Kalimantan. The most important type of damar in commercial trade has been *mata koetjing*, exported to both American and European markets. European countries were the major customers for all types of damar in the past but Japan is now the principal buying country. Prewar production amounted to 13,000 to 15,000 metric tons annually; postwar production was about 7,000 tons as of 1948 and was estimated at about 8,000 tons for 1954.

Copal, used in spirit varnishes, lacquers, and waxes and in the linoleum industry, is obtained from the bark of *Agathis* trees—chiefly in the eastern half of Indonesia, particularly the Moluccas, Sulawesi, and Kalimantan. The large, relatively unmixed stands of southern Kalimantan, which have received attention as a source for plywood and pulp, are also one of the copal-producing areas. Lesser quantities of good-grade copal are produced in Sumatra. Prewar exports of copal ranged from 12,000 to 16,000 metric tons per year, but the highest annual postwar export was 5,950 tons (1954).

FOREST LEGISLATION AND CONTROL

Indonesian forests are on public lands, except for small tracts. In Java almost all the forested area is "reserved," and cutting is directly regulated by the Forestry Service; on the other islands, extensive areas, particularly the upland regions, are reserved.

On nonreserved lands licenses must be obtained from the Forestry Service, which designates the area to be worked. In Sumatra the licenses are generally on an annual renewable basis, and are issued for areas usually not larger than 2,000 hectares. However, extensive concessions of 7,000 to 10,000 hectares have been granted for periods up to 30 years.

Scope of Legislation

Indonesian forest legislation dates from the 1860's, with a basic Forest Ordinance in 1897 and other regulations at later dates. The laws and regulations were primarily designed to exploit and protect the teak forests of Java. The later laws were concerned with bringing the forests under sustained yield. Detailed regulations were issued which provided for prescribing teak-forest boundaries, the surveying and mapping of these areas, and plans for bringing them under a sustained-yield policy. The legislation provided for acquisition, by the Government, of private leases as such leases expired, for reforesting, felling, and protecting these forests, and for building roads and other works in connection with their exploitation and conservation.

In contrast with the extensive legislation concerned with the teak forests of Java, apparently

[8] Much of the processing of gum from pine has long been from a Government estate operation in the Atjeh area of North Sumatra. A plant there processed turpentine, selling the rosin primarily to batik manufacturers in Java. This plant was destroyed by fire in 1955.

little was done to govern the exploitation of forests on the other islands and information on such legislation is not readily available. No general forest law exists for the other islands but various ordinances and regulations are in effect.

All forest areas in the Outer Islands are under trusteeship of the Government, which issues forest concessions of three sizes: (1) Small concessions (up to 500 hectares) to small enterprises; (2) medium-sized concessions (500 to 5,000 hectares) to logging companies; and (3) large concessions (5,000 to 40,000 hectares) to large-scale logging companies and to sawmillers and other woodworking industries. Loggers on the concessions are required to leave certain marked seed trees, a measure designed to insure a natural reforestation. In "reserved areas" of the Outer Islands the logging restrictions are much more strict and in some areas logging is prohibited.

Administration and Conservation

During the earlier years of the Dutch colonial period, native exploitation of wooded areas was left undisturbed. Later, unscientific lumbering and the clearing of land for agriculture began to denude accessible areas in Java and the need for supervision of forest exploitation and development was recognized. In 1879 the Forestry Service was established. Attention was devoted primarily to the teak forests of Java and it was not until 1910 that a permanent forestry officer was stationed at any place in the Outer Islands. By 1937 the Forestry Service, which consisted of 5 divisions with a total staff of almost 2,400, had 23 forestry officers appointed to the various residences of the Outer Islands.

Since World War II, as well as in the immediate prewar years, sizable amounts have been spent by the Indonesian Forestry Service to reforest areas on Java, especially on the slopes of volcanic mountains in East Java. Reforestation from 1950 through 1953 by the Forestry Service amounted to about 190,000 hectares and, in 1954, 49,000 additional hectares were reforested.

Losses in the forest reserves have been extensive in the war and postwar years. During the war the Japanese carried on quick, clean cutting in easily accessible forests in order to help supply lumber to shipbuilding yards. They also authorized the clearing of forest lands for the cultivation of food, with resultant devastation in some areas.

The postwar years have brought some improvement, but the great demand for wood and arable land—constantly growing with the increase in population—continues to give rise to extensive clandestine tree felling. No statistics are available, but it is believed that this illegal felling in some areas neutralizes or nearly neutralizes the effect of reforestation. In 1954 it was estimated that about 500,000 hectarces of forests had been denuded in Java since the end of the war and that heavy losses were suffered in other parts of the country.

INVESTMENT IN FORESTRY

Outside of Java and Madura, some of the large areas of forest appear to be commercially exploitable. However, heavy investment would be required to develop them on a modern, profitable basis. Because of this fact the Government is of the opinion that the development of forests on a large scale must be by the Government or with Government assistance. In most of the areas transportation and communication facilities are lacking. Difficulties in financing and the lack of Indonesians trained in forestry operations are other handicaps to plans for exploitation.

Among the centers which have been proposed by the Indonesian Government for the development of sawmilling and other wood industries are Bandjarmasin, Balikpapan, Samarinda, and Tarakan in Kalimantan; Besitang and Semangus (near Palembang) in Sumatra; and Djakarta and Surabaja in Java. Sampit (in southern Kalimantan) and Poesea (near Lake Toba in Sumatra) have been mentioned as suitable for the establishment of pulp industries, owing to the abundance of coniferous forest stands.

The possibilities of a large modern timber industry in southern Kalimantan have long been recognized and this area has been considered among the most promising for other wood industries. Lumber mills were planned for this area by the Netherlands Indies Government in prewar years, and in 1951 a mixed Dutch-Indonesian enterprise (N. B. Bruynzeel Dajak) opened a sawmill at Sampit, reported to be the largest in Asia. The operations, which involved heavy investments, are said to have incurred losses and in 1954 it was reported that the company's mills had been taken over by the Government.

FISHERY RESOURCES AND OUTPUT

Fishing is of greater importance in the Indonesian economy than is generally recognized. Its significance is not apparent from statistical data because fishing is a mobile and widely dispersed activity and plays little part in revenues and international trade. Nevertheless, as an occupation for large numbers of persons (usually part time) in supplying a basic foodstuff and as an activity offering possibilities for expansion, it should not be overlooked.

In the Indonesian diet fish is the staple complementing rice, and it supplies most of the animal protein consumed as well as calcium, iodine, and salt—items otherwise not easily come by or ex-

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pensive. A statement about a local ecology, "Rice and fish together form a Javanese meal and all the rest is supplementary," could be repeated for most areas of the country.

Although the number of persons engaged in fishing is reported as 393,000 in 1953, covering only the sea fisheries, probably well over a million persons in Indonesia are fishermen. Along the coasts many fishermen are part-time workers, sharing their labor between ricefields and fishing boats and nets. Inland farmers and villagers fish in swamps, ricefields, rivers, and lakes, using the catch for their family needs.

The extensive Indonesian archipelago includes tens of thousands of square miles of usable fishing grounds. Commercial sea fishing, however, is largely confined to a narrow band off the coasts of the various islands, the greatest concentration being off northern Java. As in other tropical waters the number of species is large, but each species has relatively few members in comparison with the resources of cooler waters. This circumstance is reflected in the commercial catch; although it consists of some 90 or more species, no one species is preponderant.

Indonesia also has fishery resources of considerable importance in lakes, rivers, swamps, and artificially made ponds. The extensive systems of brackish coastal waters (*tambaks*) yield a large part of this inland fisheries production. Fish are also raised in limited degree in the flooded ricefields.

No precise data are available on Indonesia's take of fish and other fishery products. Figures of the Department of Fisheries of the Ministry of Agriculture show production of 572,000 tons for 1952, 616,600 tons for 1953, and 628,000 tons for 1954. Of the reported 1954 output, 401,000 tons were produced from the sea fisheries and 227,000 tons from inland fisheries. These figures do not take into account the large part of the total fish catch consumed by the families of fishermen and the high loss due to spoilage.

Production data, including the number of fishing boats and fishermen, for the sea fisheries are given in table 11 for 1952 and 1953 and production data for both sea fisheries and inland fisheries for 1954 are given in table 12.

The gains in production in the postwar years, which have raised output above reported prewar figures (472,000 tons in 1940 for both sea fisheries and inland fisheries), result largely from an expansion of the sea fishing fleet, particularly motorized vessels. Another factor is the Government's distribution of fingerlings to farmers for use in inland fisheries.

FISHING METHODS

Indonesia's commercial sea fishing fleet was reported as of 1953 at about 93,000 boats in operation, but other data indicate a considerably smaller number. Total fishing units, consisting of 1 fish trap or 1 fishing vessel, have elsewhere been reported as about 40,000. Since most of the fleet consists of very small craft—sail and rowboats—the number reported depends, in part, upon the definition of "boat"; also the nature of the industry makes it very difficult to collect accurate data.

The principal fisheries are the *majang* fishery, the trap fishery, that for flying fish, reef fishing, the developing tuna fishery, and the inland fisheries.

The majang fishery, which accounts for more than half of all the fish caught by Indonesians in the Java Sea, is carried out by small craft

Table 11.—Indonesian Sea Fisheries: Production Data, 1952–53

Area	Production of fish			
	1952		1953	
	Volume (metric tons)	Value (1,000 rupiah)	Volume (metric tons)	Value (1,000 rupiah)
Java and Madura	68, 585	131, 413	71, 214	168, 244
Sumatra	157, 830	1, 044, 703	131, 399	752, 577
Kalimantan	41, 360	121, 220	75, 000	251, 250
East Indonesia	97, 356	368, 979	97, 500	369, 354
Total	365, 131	1, 666, 315	375, 113	1, 541, 425

Area	Number of fishing boats					
	1952			1953		
	With engine	With sail	Total	With engine	With sail	Total
Java and Madura	130	22, 930	23, 060	139	28, 159	28, 298
Sumatra	160	25, 677	25, 837	561	25, 340	25, 901
Kalimantan	10	5, 730	5, 740	11	3, 103	3, 114
East Indonesia	31	36, 036	36, 067	36	36, 036	36, 072
Total	331	90, 373	90, 704	747	92, 638	93, 385

Area	Number of fishermen	
	1952	1953
Java and Madura	145, 838	168, 448
Sumatra	99, 804	113, 373
Kalimantan	4, 500	4, 953
East Indonesia	106, 004	106, 004
Total	356, 146	392, 778

Source: Indonesian Sea Fisheries Service, Ministry of Agriculture.

Table 12.—Total Production of Indonesian Fisheries, 1954

[In thousands of metric tons]

Area	Sea fisheries	Inland fisheries
Java and Madura	71	65
Sumatra	132	48
Kalimantan	96	89
East Indonesia	102	25
Total	401	227

Sources: Indonesian Sea Fisheries Service and Inland Fisheries Service, Ministry of Agriculture.

(majang) which operate with nets. A net (*pajang*) is used to surround a school of fish near the surface and is then towed through the water to capture the fish in the bunt. Prior to using the net, the fish are lured by artificial shelters of coconut fronds. The most important species caught by this method are horse mackerel, mackerel, pomfret, and sprat.

In trap fishing (*sero*), traps of many designs and shapes and of varying sizes are used throughout Indonesian waters. Among the many kinds of fish caught by traps, mackerel, pomfret, sardines, anchovies, sprat, Spanish mackerel, and horse mackerel are most numerous.

Flying fish are taken in traps which float in the water near masses of seaweed in spawning areas. As the flying fish skim over the surface to lay their eggs they attempt to avoid the seaweed and in submerging plunge into the traps.

Reef fishing, which is conducted primarily for yellowtail, consists of catching the fish in fixed nets into which they have been driven by divers.

A tuna fishery is being developed in eastern Indonesian waters with vessels operating out of Aertembaga (Sulawesi) and Ternate and Ambon (the Moluccas). The catches, made by vessels on daily trips from port, consist largely of skipjack, although some yellowfin and bluefin tuna are taken. Some fishing experts believe this type of fishing can be greatly expanded.

Other important methods of fishing are by beach seines, haul seines, gill nets, scoop nets, cast nets, hook and line, and bamboo pots. Trawling is not common, but has been carried on in the Makasar district for sharks and rays. Pearl and trochus fisheries are conducted by divers.

Catches in the extensive inland fisheries are made with cast nets and with various types of traps and pots. Lake Tempe in Sulawesi is one of the important inland fishing areas.

In Java extensive and quite advanced inland fisheries have been developed. Along the north coast, near Djakarta, Semarang, and Surabaja, large connecting ponds (*tambaks*), filled with sea water by skillful use of the tidal movement, are used to grow marine fish. Spawn and young fish, gathered from the sea and carried to the ponds, fatten on algae and weeds. The milkfish (*Chanos chanos*)—or *benteng* in Indonesian—is the most common fish raised by this method as it reaches a marketable size within a year, but mullets, snappers, and eels are also produced. Tambaks are also found in Sulawesi, Sumbawa, and North Sumatra, but are not extensive in these areas. The total area of the tambaks was estimated at about 295,000 acres as of a few years ago.

Inland artificial fresh-water ponds cover extensive areas; in these fish of the carp type are bred in greatest numbers. The ricefields (*sawahs*) in which large quantities of fish are also raised, mainly for home consumption, yield an average of about 15 kilograms per month per acre. According to data of the Inland Fisheries Service, in 1953 about 43,000 acres of inland ponds and 110,000 acres of ricefields were devoted to raising fish.

PROCESSING AND TRADE

Salting and drying, the major means of processing fish, are carried on throughout Indonesia. The making of fish preparations is of some importance and fish fertilizer is also produced (table 13). Canning is done but only on a small scale in two or three places. One plant, which canned sardines, is known to have been abandoned reportedly because of erratic supplies of fish. As of mid-1955 a small cannery in Bali was operating.

Table 13.—Indonesian Production of Fishery Products, 1938 and 1947–53

[In thousands of metric tons]

Year	Dried and salted fish	Fish preparations	Fish fertilizer
1938	51.0	8.0	6.0
1947	3.5	.7	----------
1948	7.2	1.5	----------
1949	14.5	2.9	----------
1950	18.2	3.7	8.1
1951	18.5	3.7	21.0
1952	20.3	4.1	21.2
1953	21.1	4.3	8.7

Source: Food and Agriculture Organization, *Yearbook of Fisheries Statistics, 1952–53*, vol. IV, part 1, Production and Craft, Rome, 1954.

Most Indonesian fish is marketed locally but interisland trade is considerable. Java and Madura are importing areas whereas Sumatra and Kalimantan and East Indonesia ship to Java. The principal items in this trade are loosely packed, salted and dried fish and fish paste.

Indonesia is a net importer of fishery products, and these have not played as important a part in trade as in prewar years. The postwar cutback in imports has been due largely to conservation of foreign exchange. Statistics show imports of 36,000 to 38,000 tons annually in recent years, mostly salted or dried fish from Thailand and Malaya, and exports of about 1,000 tons of fresh fish to Malaya. In addition, some 8,600 tons of fertilizer from fishery products were exported to Malaya.

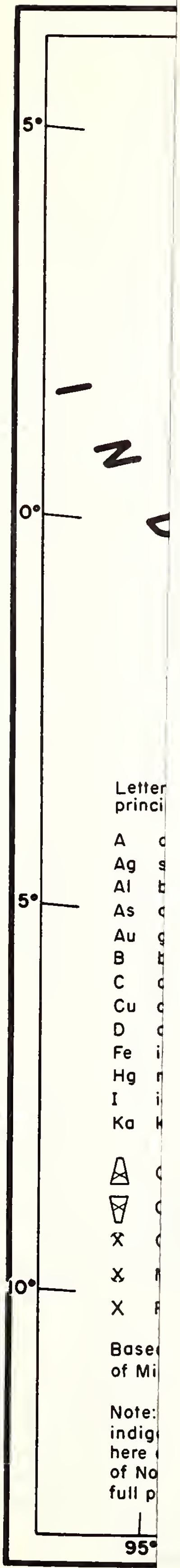
RECENT FISHERY PROGRAMS

The fishing resources of Indonesia are considered of sufficient magnitude to sustain annual catches far above those now taken, and could be expanded. Under the Ministry of Agriculture's Five-Year Plan a rather comprehensive program has been scheduled calling for an increase by 1959 to 600,000 tons for sea fisheries and 420,000 tons for inland fisheries. The increases are based pri-

marily on the use of additional motorized vessels, increased tambak acreage, and a marked extension of fish cultivation in ricefields. To further assist the program, additional fishery cooperatives are being encouraged, the Government is establishing more breeding stations, and the training of technical personnel is being increased.

To more fully utilize the catch, reducing some of the spoilage, attention has been given to improving terminal and processing facilities. Current plans include construction of an iceplant, cannery, and a fish-flour plant at Kota Baru in southeastern Kalimantan. Also, a plan is under way for building a fish cannery on the island of Ambon.

Whether Indonesia can achieve the planned increases in production and develop a greater degree of processing remains to be seen. The increases of the past few years are encouraging, but large-scale expansion is limited by insufficient capital, the lack of incentive on the part of fishermen because of high interest rates, and by poor fishing methods in some respects.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INDONESIA
PETROLEUM AND MINERAL EXPLOITATION
SOUTH CHINA SEA
FEDERATION OF MALAYA
THAILAND
PENANG
PHILIPPINES
BRITISH NORTH BORNEO
BRUNEI
SARAWAK
CELEBES SEA
TALAUD
MOROTAI
HALMAHERA
HALMAHERA SEA
MOLUCCA ISLANDS (MALUKU)
MOLUCCA SEA
OBI
CERAM SEA
CERAM
BURU
AMBON
NEW GUINEA
ARU ISLANDS
TANIMBAR ISLANDS
BANDA SEA
ARAFURA SEA
TIMOR SEA
AUSTRALIA
SUMATRA
SIMEULUE
NIAS
SIBERUT
MENTAWAI ISLANDS
MEDAN
PADANG
PALEMBANG
Strait of Malacca
BINTAN
RIOUW ARCHIPELAGO
LINGGA
LINGGA ARCHIPELAGO
SINGKEP
BANGKA
BILLITON (BELITUNG)
Strait of Karimata
KALIMANTAN (BORNEO)
BANDJARMASIN
Makassar Strait
SULAWESI (CELEBES)
Gulf of Tomini
Gulf of Tolo
Gulf of Bone
MAKASAR
MUNA
BUTUNG (Buton)
SALAJAR
JAVA SEA
DJAKARTA
Sunda Strait
JAVA
JOGJAKARTA
SURABAJA
MADURA
BALI SEA
BALI
LOMBOK
SUMBAWA
FLORES
FLORES SEA
Sumba Strait
SUMBA
SAVU SEA
LESSER SUNDA ISLANDS
ALOR
WETAR
TIMOR
OKUSI AMBENO (PORT.)
(PORT.)
ROTI
INDIAN OCEAN
Letters within parentheses indicate principal mineral present
A asphalt
Ag silver
Al bauxite
As asbestos
Au gold
B barite
C coal
Cu copper
D diamonds
Fe iron
Hg mercury
I iodine
Ka kaolin
Mi mica
Mn manganese
Ni nickel
P phosphate
Pb lead
Pt platinum
Qtz quartz sand
S sulfur
Sb antimony
Sn tin
Ti titanium sands
Zn zinc
Operating oilfields
Oilfields not operating
Operating mines
Mines not operating
Principal prospects
Based on data of Indonesian Department of Mining (Djawatan Pertambangan), 1955
Note: Some oil is being produced by indigenous groups from oilfields shown here as not operating (especially those of North Sumatra), but they are not in full production
0 100 200 300
MILES
56-12-8

Petroleum and Mining

The economic life of Indonesia is strongly affected by the country's mineral production. Petroleum and tin are of outstanding importance—these two minerals and their derivatives account for about one-third of total exports. Coal and bauxite are of secondary importance and a number of other minerals are produced in smaller quantities (tables 14 and 15).

Table 14.—Output of Major Indonesian Mineral Products, Prewar Years and 1949–54

[In thousands of metric tons]

Year	Crude petroleum	Tin concentrates (tin content)	Bauxite (crude ore)	Coal
1935-39 average	7, 026	29. 5	164	1, 374
1939	7, 949	27. 2	231	1, 781
1940	7, 939	42. 0	275	2, 009
1949	5, 933	29. 5	678	602
1950	6, 414	32. 6	531	804
1951	7, 445	31. 5	642	868
1952	8, 523	35. 6	[1] 344	969
1953	10, 224	34. 3	[1] 150	898
1954	10, 775	35. 9	[1] 166	890

[1] Dried equivalent of crude bauxite ore.

Sources: United Nations, *Statistical Year Book, 1954*, for data from 1935 through 1953. Data for 1954 from Indonesian Department of Mining (Djawatan Pertambangan).

Table 15.—Output of Minor Indonesian Mineral Products, 1953–54

[In metric tons, except as indicated]

Mineral	1953	1954
Asphalt rock	2, 051	1, 237
Iodine kilograms	9, 547	10, 668
Kaolin	n. a.	n. a.
Manganese ore	[1] 16, 986	14, 916
Monazite sand	285	10
Nickel ore	n. a.	n. a.
Phosphate rock	828	n. a.
Salt	266, 000	130, 000

n. a. Data are not available.
[1] Also reported as 18,425 metric tons.

Source: Data largely from Indonesian Department of Mining (Djawatan Pertambangan) as reported by the United States Embassy, Djakarta.

Mineral resources are varied and generally considered to be extensive. However, investigations are incomplete and statistical collection facilities are not adequate to provide accurate data for many of the minerals, particularly those produced in outlying areas. On the basis of resource information at hand there appears to be a good potential for several minerals in addition to petroleum and tin. Nickel, bauxite, and possibly iron are among the most promising. For other minerals, for example, manganese and sulfur, the potential appears small to moderate, and for many others it is as yet uncertain. In the long run Indonesian minerals may offer important opportunities for development and could stimulate activities in undeveloped regions.

No prediction is possible regarding specific fields of development or the probable extent of foreign capital participation. As of the present, conditions for increased mining operations do not appear particularly promising because of a general uncertainty as to the Indonesian Government's intent with respect to many concession rights now approaching expiration. There is also some fear of future nationalization of mining enterprises, based on various statements of Indonesian officials. Nevertheless, mining is a field in which foreign capital could under improved circumstances find new opportunities. It has attracted foreign investment in the past, and most of the major mining operations are still carried on by foreign companies.

Several measures could be taken to facilitate exploration for mineral deposits and to further the development of the mining industry, should the Indonesian Government desire to do so. Particularly important will be its position with respect to prospecting and exploitation. A policy offering positive incentives for these difficult and expensive operations would do much to stimulate future development. Such incentives, as well as safeguards against undesirable control over minerals, may be provided by the new mining laws now under consideration.[1] A clearcut policy regarding the scope of nationalization of mining enterprises would also help to clear up present uncertainties.

PETROLEUM

The petroleum industry, in which foreign companies carry on the major operations, contributes large foreign exchange earnings through taxes, export and import duties, and rental fees. It gives

[1] As of early 1956 two mining laws reportedly were under consideration—one dealing with hydrocarbons and the other with minerals in general.

direct employment to thousands of Indonesians and indirect employment to a much greater number. It also provides an important training ground for skilled labor.

Resources

Indonesian petroleum resources are considered to be the largest in the Far East, but they are small in relation to those in the Middle East and Latin America. Recent estimates of known reserves range from 1.2 to 1.9 billion barrels—or between 1 and 2 percent of the world's reserves. Prospects are considered good for significant new discoveries. Natural gas reserves associated with the petroleum are estimated at over 1 trillion cubic feet.

The richest oil areas are in Sumatra, the Residencies of Palembang and Djambi being of major producing importance in South Sumatra and the Atjeh area the focal district in North Sumatra. In recent years Central Sumatra has become increasingly important because of new discoveries, and this part of the island may in time overshadow the other Sumatran areas.

Kalimantan ranks next to Sumatra as a major producing region. The Samarinda field in southeastern Kalimantan near Balikpapan is one of the largest in Indonesia. Another producing area includes the islands of Tarakan and Bunju just off the northeastern coast of Kalimantan, near British North Borneo. Other areas in Kalimantan offer potentials for development.

The central and eastern part of northern Java and the island of Madura have a wide scattering of oil wells, but most of them are relatively small producers. While these areas appear much less promising than Sumatra or Kalimantan, new developments in Java may be profitable. The island of Ceram in the Moluccas has produced oil, but no estimates have been made of the reserves of this structurally complicated field.

The oil produced in Central Sumatra is exceptionally high in wax content and has a high pour point. It is low in sulfur content.

Production

The Indonesian petroleum industry was rehabilitated rapidly following World War II and has been expanded considerably in recent years (table 14). Further expansion is currently under way.

Crude oil.—Production of crude oil in 1953 and and 1954 (table 16) amounted to 10.2 million and 10.8 million tons, respectively, compared with 7.4 million tons in 1938 and 7.9 million tons in 1939, the peak prewar year. Output in 1955 increased by about 1 million tons over the 1954 level, reaching 11.8 million tons.

The largest production of crude oil is from fields in Sumatra, but Kalimantan produces important amounts; Java fields contribute much smaller quantities. About half of the crude production in recent years has been by American companies—Stanvac and Caltex (table 17).

Natural gas.—The production of natural gas—a raw material associated with petroleum—has increased in recent years, reaching more than 2 million metric tons in 1954 (table 17). Only a fraction of the natural gas is used in extracting natural gasoline; large quantities are dissipated into the air from the oilfields.

Refinery output.—As reported by the Indonesian Department of Mining, net refinery output in 1954 amounted to 10.4 million tons or slightly above the 1953 output (table 18).

These production data include the operation of five refineries—two in Sumatra (Sungei Gerong and Pladju in South Sumatra); one in Kalimantan (Balikpapan); and two with much smaller production in Java (Tjepu and Wonokromo).

Table 16.—Indonesian Production, Imports, and Exports of Petroleum and Petroleum Products, 1938 and 1950–55

[In thousands of tons]

Year	Crude oil			Petroleum product	
	Production	Imports	Exports	Imports	Exports
1938	7,398	----------	68	158	5,999
1950	6,816	1,575	8	69	6,091
1951	8,093	1,495	----------	73	6,725
1952	8,523	2,211	599	95	7,284
1953	10,225	2,279	2,086	99	7,513
1954	10,775	2,131	2,303	88	7,584
1955	11,804	n.a.	n.a.	n.a.	n.a.

n.a. Data are not available.

Source: Central Bureau of Statistics (Kantor Pusat Statistik), Ministry of Economic Affairs.

Table 17.—Indonesian Production of Crude Petroleum and Natural Gas, by Companies, 1952–54 [1]

[In thousands of metric tons]

Company	Crude petroleum			Natural gas		
	1952	1953	1954	1952	1953	1954
N. V. Bataafsche Petroleum Mij. (BPM)	3,444	3,743	3,954	599	793	891
N. V. Netherlands Indies Petroleum Mij. (NIAM)	1,167	1,283	1,482	221	228	360
N. V. Standard-Vacuum Petroleum Mij. (Stanvac)	3,176	3,127	3,239	553	726	770
N.V. Caltex Pacific Petroleum Mij. (Caltex)	736	2,072	2,100	6	16	20
Total	8,523	10,225	10,775	1,379	1,763	2,041

[1] Production of the North Sumatra and Tjepu (Central Java) wells are not included. In 1954 these installations are estimated to have produced about 370,000 and 30,000 tons, respectively.

Source: Indonesian Department of Mining (Djawatan Pertambangan).

Table 18.—Indonesian Refinery Production, 1953–54

[In thousands of metric tons]

Item	1953	1954
Crude run to stills:		
Domestic	7, 937. 4	8, 407. 5
Imported	2, 404. 1	2, 164. 8
Total	10, 341. 5	10, 572. 3
Output:		
Aviation gasoline	384. 5	297. 9
Gasoline	2, 215. 5	2, 167. 7
Kerosene	1, 179. 9	1, 368. 9
Solar and diesel oil	2, 459. 9	2, 332. 4
Residual fuel oil	3, 240. 0	3, 508. 9
Paraffin	110. 1	118. 8
Asphalt and cutback	30. 1	34. 4
Gas fuel	251. 1	126. 5
Batching oil	86. 4	64. 3
Other products	242. 1	528. 8
Loss through inventory	(−)9. 6	(−)10. 2
Loss through production	(−)151. 5	(−)160. 6
Net refinery production	10, 038. 5	10, 411. 7

Source: Based on data of the Indonesian Department of Mining (Djawatan Pertambangan).

Marketing and Consumption

Petroleum exports have risen significantly in the postwar period and in 1954 accounted for about one-fourth of the total value of exports. Excluding bunkers, exports of crude and petroleum products amounted to 9,887,000 tons in 1954, of which crude motor gasoline and fuel were the important components. Crude oil exports in the past few years have amounted to more than 2 million tons annually, largely shipments by Caltex to its new refinery in the Philippines and to the west coast of the United States. Imported crude—mainly brought in by Bataafsche Petroleum Maatschappij (BPM), which has not been permitted to exploit some of its concessions—has been about equal to the exported crude (table 16).

Indonesian consumption of petroleum products has increased. Table 19 shows 1954 inland trade in petroleum products from BPM and Stanvac refineries and from foreign sources.

Table 19.—Inland Trade in Petroleum Products, 1954

[In thousands of liters, except as indicated]

Product	Output sold in Indonesia		Imports	Total
	BPM [1]	Stanvac		
Aviation gasoline	15, 770. 0	12, 456. 3		28, 227. 2
Automotive gasoline	508, 382. 4	177, 303. 3		685, 685. 8
Terpine	6, 054. 2			6, 054. 2
Solvent oil	1, 588. 2		168. 0	1, 756. 2
Kerosene	547, 385. 2	193, 587. 6		740, 972. 8
Solar oil	182, 626. 1	74, 113. 2		256, 739. 2
Diesel oil	94, 077. 6	47, 989. 5		142, 067. 1
Residual oil	208, 235. 3	79, 424. 8		287, 660. 1
Lubricating oil	42. 5		34, 841. 6	34, 884. 1
Industrial oil		570. 8	1, 665. 9	2, 236. 8
Household specialties		58. 8	783. 1	841. 9
Naphtha		4. 9	64. 3	69. 2
Grease......1,000 kilograms			3, 353. 8	3, 353. 8
Asphalt......do	32, 071. 2		13, 867. 9	45, 939. 2
Wax (paraffin)......do	5, 490. 0	3, 790. 6		9, 280. 6
Liquid petroleum gas		5. 4		5. 4

[1] N. V. Bataafsche Petroleum Mij.

Source: Indonesian Department of Mining (Djawatan Pertambangan).

Ownership and Company Operations

Indonesian oil production is largely in the hands of four companies. Two are subsidiaries of American oil companies; one is a Dutch company; and the fourth is a joint Indonesian Government-private company enterprise.

N. V. Standard-Vacuum Petroleum Maatschappij (referred to elsewhere in this report as Stanvac), of which Standard-Vacuum Oil Co. of New York is the parent company, has operated in Indonesia since 1912. The company produces from fields in South Sumatra and has a refinery at Sungei Gerong, near Palembang. The value of its total investment is not known, but undoubtedly it is large. The installations were badly damaged during the war but major rehabilitation has taken place. In March 1954, at the time a new agreement was reached with the Indonesian Government covering a profit split, the company announced that it intends to carry out a capital investment of from $70 million to $80 million over a 3-year period.

This expenditure will cover the drilling of new wells in the Lirik region of Central Sumatra, renovation of the company's refinery at Sungei Gerong, and the building of pipelines to serve the new Lirik development. As of November 1955 some of this new construction was under way; for example, according to a press report about 10 miles of the pipeline had been completed. The company also announced that it had long-term plans for further development, provided it is granted the new exploration and exploitation rights for which it has applied to the Indonesian Government.

The petroleum products from Stanvac's refinery at Sungei Gerong in South Sumatra are marketed throughout Indonesia through Standard-Vacuum Sales Co. Stanvac also maintains a tanker fleet.

N. V. Caltex Pacific Petroleum Maatschappij (referred to elsewhere in this report as Caltex), of which the parent companies are the Standard Oil Co. of California and the Texas Oil Co. (New York), went into Indonesia in 1935, much later than the other companies which are operating there. By the time of the outbreak of World War II Caltex had made encouraging discoveries and was ready to drill. During the war the Japanese drilled at the point at which the company had installed a rig and thus produced the first oil from what is today the main Caltex operating area—the Minas field near Pakan Baru in Central Sumatra.

Since 1950 the company has gone into major production, increasing its output from some 736,000 tons in 1952, the first year of production, to 2,100,000 tons in 1954. The company has built a base settlement in the jungle, now employs more than 3,000 Indonesians, and is providing training to many more. The company is reported to be

planning additional investment over the next several years to expand its operations.

Bataafsche Petroleum Maatschappij (BPM), of the Royal Dutch Shell group, is the largest producing company in Indonesia. The company's production is approaching its prewar level in spite of the fact that it is not in possession of five of its fields in North Sumatra and three of its fields in Java. The company is operating holdings in South Sumatra and Kalimantan but the fields in North Sumatra and East Java are operated by indigenous groups.[2] Many political and emotional pressures have been brought to bear on successive Governments with respect to the disposal of these latter properties; as of 1955 the Government appeared no closer to the solution than several years ago.

Mining Concessions [3]

Petroleum concessions for exploration and development are generally held under provisions of article 5a of the Mining Law of 1899, as amended in 1918, although a few older concessions are held on a somewhat different basis under the law prior to this amendment. Under the "5a contracts" which have been made between the various companies and the Netherlands Indies Government, exploration concessions may be held for a maximum of 5 years and development concessions for a maximum of 40 years. The development concessions obtained in the earlier period are valid for a maximum of 70 years.

Mining concessions, including those for petroleum, were extended in 1948 to allow for the time they were inoperable during the war and the early postwar period of internal disturbances. Issuances of new permits have been virtually suspended, however, pending the passage of new mining legislation.

Government-Industry Relations

The petroleum industry, because of its importance to the country's economy, has been given greater encouragement in its operations than have other foreign-controlled industries. In 1948, the Government signed "let alone agreements" with the three major oil companies (Stanvac, Caltex, and BPM). These agreements permitted the companies to retain foreign exchange earnings and gave them responsibility for financing their own imports. The agreement with BPM was due to expire at the end of 1955.

[2] As of May 1954 the properties in North Sumatra were placed under control of the Ministry of Economic Affairs. Although this did not nationalize the properties it appeared to be a step in that direction. More recently, however, some statements seem to indicate that the Government may not nationalize these properties.

[3] See chapter XIV and appendix E for further discussion of the Indonesian mining laws.

In 1954 new agreements, negotiated by Stanvac and Caltex for periods of 4 and 5 years, respectively, replaced the earlier let-alone agreements of these companies. Under the new agreements the two companies, on certain conditions (including monthly reports and the submission for approval of an annual foreign exchange budget), receive a general foreign exchange permit to expend foreign currency for imports and invisible payments necessary to maintain and develop their enterprises in Indonesia. They may also retain temporarily their foreign exchange earnings from export or other sources. In connection with the new arrangements both companies are expanding their investments over the next few years.

Outlook

The short-term prospect for the petroleum industry is moderately favorable. Production is increasing and new investment is taking place. There are numerous operating problems, however, particularly in the labor field;[4] and competition with Middle East crude together with the high wax content of Indonesian crude are unfavorable aspects. The long-term prospects are unpredictable and depend on political as well as economic factors.

The resources are large, but what further exploitation will be made of them is not clear. For long-term development new concessions are needed, and the granting of these awaits enactment of new mining legislation. And although the oil companies are being treated more favorably than other foreign firms, the Indonesian Government still remains undecided on the basic question respecting attitude toward foreign capital. Thus, further expansion of the oil industry in Indonesia depends, to a considerable degree, upon policy decisions yet to be taken by Indonesia.

TIN

Indonesia, having regained its prewar position as the world's second producer of tin,[5] finds tin mining a major earner of foreign exchange. Only rubber and petroleum exceed tin in the export trade and tin exports are especially valuable because they are sold chiefly for dollars. Tin also provides a considerable amount of Government revenue, through the Government's yield from profits and dividends from its enterprises together with income from taxes paid by the tin industry. While important in these respects, the industry affects directly only a small percentage

[4] The companies find a scarcity of Indonesians with sufficient training to increase the ratio of Indonesians as rapidly as desired by Indonesian officials, and some of the labor demands for increased benefits have appeared unrealistic.

[5] In some postwar years Indonesia has been the third producer after Malaya and Bolivia, but in the most recent years its production has surpassed that of Bolivia.

of the population and accounts for only a small part of the national income.

Resources

Tin is found mainly in the three islands of Bangka, Billiton, and Singkep off the eastern coast of Sumatra. In addition, small deposits occur near Bangkinang on the west coast of Sumatra and on the islands of Karimun and Kundur. Occurrences have also been reported on most of the other islands of the Riouw Archipelago and also on islands off the east coast of Sulawesi.

Geologically, Indonesian tin ore deposits are of the same kind as those in the other tin fields of Southeast Asia. Primary tin deposits occur in quartz veins, granite, and greisen on Bangka and on Billiton, but more important are the large alluvial and eluvial deposits. Most of the ore is in alluvial deposits found mainly in river valleys and on the slopes of hills. In several places deposits extend along the coastline under the sea.

Data on tin resources are incomplete, but operators have no fear that the supply will be exhausted in the foreseeable future. The alluvial reserve is estimated at 1 million tons of tin content. In addition, extensive deposits of primary ore in lode mines have never been fully developed. Many well-informed specialists believe an active prospecting program would determine much larger reserves.

Production and Exports

Production in the period 1950–54 averaged about 33,500 metric tons annually (table 20), the high point being in 1954. Output in 1955 was at about the same level—33,817 tons. The recent average level is about the same as for 1936–40, but considerably below the peak year 1941, when output reached more than 53,000 tons and Indonesia accounted for 21 percent of world production.

Table 20.—Production and Exports of Tin, 1938 and 1950–55

[In long tons]

Year	Production of tin in concentrates	Exports	
		Tin in concentrates	Tin metal
1938	29, 728	13, 699	7, 207
1950	32, 102	31, 349	4
1951	30, 986	30, 750	1
1952	35, 003	34, 601	15
1953	33, 822	32, 732	224
1954	35, 862	33, 941	944
1955	[1] 33, 817	[1] 32, 030	n. a.

n. a. Data are not available.
[1] Preliminary estimate.

Sources: International Tin Study Group, *1954 Statistical Year Book* and *Statistical Bulletin*, The Hague. Data for 1955 are from Indonesian Department of Mining (Djawatan Pertambangan).

Bangka furnishes about two-thirds of the output and Billiton and Singkep together produce the remainder. Bangka tin, as the metal from the island of Bangka is known in commercial channels, is of the purest quality. Concentrates from Billiton and Singkep are also high grade, and "Billiton tin," which refers to metal from both of these islands, is frequently specified commercially.

The production of tin in Indonesia in 1953–54 was as follows, by districts:

	In long tons 1953	*In long tons* 1954
Bangka	21, 399	24, 695
Billiton	9, 715	9, 019
Singkep	2, 708	2, 146
Total	33, 822	35, 860

Sources: International Tin Study Group, *1954 Statistical Year Book*, The Hague, for 1953 data. Statistics for 1954 are from Indonesian Department of Mining (Djawatan Pertambangan).

Ore is recovered from the alluvial deposits in several ways. Tin-bearing areas of great size and sufficient depth and those covered by the sea are worked with powerful floating bucket dredges, completely equipped to separate the ore from sand, clay, and silt, which are then dumped behind the dredge. Sometimes a "forerunner" (a suction-cutting dredge or other earth-moving machine) is used before the bucket dredge. This forerunner removes the overburden of sand or clay so that the bucket dredge has to deal only with the tin-containing earth.

Frequently, the ore is mixed in open pits where the earth is sluiced with water to gravel pumps after the overburden has been removed by bulldozers. The pumps move the tin-bearing mixture to the head of a flume or sometimes onto sloped ground. Concentration of the heavy minerals is controlled by baffles in the flume, and partial cleaning of the low-grade concentrates is accomplished by raking the ore against an inflowing stream of water. Gravel-pump mining is particularly suitable for small producers as relatively little expenditure is necessary on development and equipment.

In the past lode mining was important. Both lodes of fairly important dimensions and small ones have been worked. Major lode mines, which were developed in the prewar years, as, for example, that of Klappa Kambit on Billiton, have not been rehabilitated.

Raw concentrates of Indonesian tin contain about 65 or 70 percent tin. By a second concentration the tin content is raised to about 73 percent [6] and the final product is dried, bagged, and shipped to the smelters.

Before the war three domestic smelters were in operation, all on Bangka, and they produced about 10,000 tons of metal a year. Since the war, only one of the smelters (at Muntok on Bangka) has been rehabilitated and it has produced only oc-

[6] The average tin content of Indonesian tin shipped to smelters in recent years is reported as 72.5 percent.

casionally, and on a small scale, for domestic requirements.

Whereas in prewar years, Indonesian concentrates went largely to smelters in Malaya and the Netherlands, since 1946 the output has been divided between the Netherlands and the United States. The former has taken about two-thirds of the postwar output and the United States the remainder. Much of Indonesia's tin exported to the Netherlands for smelting also finds its way eventually to the United States for consumption.

From 1952 until March 1955 the United States purchased tin from Indonesia under a contract negotiated by the Reconstruction Finance Corporation. The contract provided for the sale of 18,000 to 20,000 tons of tin for each of the 3 years, the tin being provided partly as concentrates and partly as metal smelted in the Netherlands. Guaranteed prices for the period March 1952 through February 1954 were for the most part above world market prices, providing very favorable terms to Indonesia when its export volume declined in 1953. The renegotiation of the agreement in 1954 terminated special prices and in the past year United States purchases have been at world market prices. Since the end of the agreement in March 1955 several short-term extensions have been made.

Some eight of the bilateral trade agreements which Indonesia has made with various countries include tin as an Indonesian export commodity. For the first half of 1955, however, the United States and the Netherlands remained the sole purchasers of Indonesian tin.

Ownership and Management

Tin production in Indonesia is centralized in the hands of a few companies. The Bangka tin fields are owned by the Government of Indonesia and worked by a Government company, Perusahaan Negeri Tambang Timah Bangka (Bangka National Tin Mining Enterprise). The mines on Billiton are worked by the Gemeenschappelijke Mijnbouwmaatschappij Billiton or GMB (Billiton Joint Mining Co.). This is a joint Government-private operation; 62½ percent of the shares are in the hands of the Government and the rest is owned by the N. V. Billiton Maatschappij of The Hague. The Singkep mines are worked by N. V. Singkep Tin Exploitatie Maatschappij or SITEM (Singkep Tin Exploitation Co.), a subsidiary of GMB.

In March 1948 all tin mining in Indonesia was brought under the central management of GMB for a period of 5 years. This arrangement was not renewed in February 1953 and the Indonesian Government took over full control of the management in Bangka at that time. The mining rights of GMB in Billiton, also due to expire in February 1953, were extended for another 5 years. Most of the members of the management board are appointed by the Government, and the company serves as a proxy to the Indonesian management. The day-to-day operation of GMB is entrusted to the Billiton Co. of The Hague, working through a management board with representatives of the Government.

International Tin Agreement

The Indonesian Government, which attaches considerable importance to international action to stabilize commodity prices, has supported postwar moves for an international agreement on tin.

The International Tin Agreement, which was worked out in 1953 at Geneva by the important tin-producing and tin-consuming countries which form the International Tin Study Group, was signed by Indonesia in 1955 and was ratified in early 1956 by the Indonesian Parliament. This agreement is designed "to prevent excessive fluctuation in the price of tin, to achieve reasonable stability of price, and to ensure adequate supplies of tin at reasonable prices at all times." It establishes an International Tin Council, which will administer buffer stock and which will determine prices appropriate to attaining the objectives.[7]

Since the United States, a major consuming country, is not a member, much of the world's trade in tin will be outside the agreement.

Outlook

In contrast with the situation for most other metals produced in Indonesia, the outlook for tin, at least in the short-term future, appears fairly bright. Not only are the reserves considered good, but production costs to date have been sufficiently low to give Indonesia an advantage over most competitors. Consequently, efficient producers are not worried about operations even though the world supply is considered high in relation to present consumption.

The world demand for tin, of which the United States demand is a major part, is generally expected to continue high. However, various times in the past, tin producers have adopted policies of restricting production to maintain the price of tin. And United States industry has found it necessary at times to reduce the demand for tin because of the uncertainty of tin supply.

The future substitution of other materials for tin and economies which can be made in the use of tin could, of course, affect future demand for this important Indonesian export product.

[7] For further details of the new agreement, which can now go into effect inasmuch as the required number of countries have ratified it, see the International Tin Study Group publication, *1954 Statistical Year Book.*

COAL

Indonesia has moderate reserves of coal, mostly of low rank. The proportion of lignite is large. No coking coal has yet been produced, but the geology of Indonesia is such that some of the bituminous coals might prove to be of coking quality. Production has increased considerably in the postwar period but is still far below prewar levels.

Coal-reserve tonnages have been reported as follows: Proved, 1.3 billion; probable, 1.2 billion; and possible, 1 billion. Since much of this coal is of lower ranks, its economic usefulness has been limited. Further utilization may be possible, but cannot be predicted with any assurance. The large known reserves are in South and Central Sumatra and eastern Kalimantan. Some deposits have also been reported for Central Java.[8]

Indonesia is a minor coal producer by world standards. Output in recent years has averaged almost 900,000 tons (table 14), from the Government's mines in Sumatra—the Bukit Asam in South Sumatra and the Umbilin in Central Sumatra—and from private mines in eastern Kalimantan. Production in 1955 was below this level, totaling about 814,000 tons. A substantial part of the coal production is fines, some of which is briquetted with asphalt binders.

The private production is largely in conjunction with shipping and other enterprises, one of the major producers being the Parapatan mine operated by a subsidiary and the major interisland shipping company. In Kalimantan, family-operated coal mines are also important producers; their output is purchased by the larger companies operating in the area.

Present production is sufficient to supply the railways, interisland shipping, a number of electric power plants, and other domestic needs and to allow for some export. Shipments in 1954, chiefly to Thailand and Hong Kong, were about 87,000 tons, somewhat lower than in 1953. Since the coal is not suitable for coking, small quantities of coke are imported for use by the local gas companies.

The short-term outlook for the coal industry is not favorable. Domestic demand is declining because of progressive dieselization of the railways and shipping.[9] Low-unit productivity is reflected in costs which compare unfavorably with those of foreign competitors, making significant expansion of coal exports unpromising. The future of the industry depends to a considerable degree upon reduced costs, which in turn depend partly on modernization and partly on improved labor output. Expansion of industrial plants in Indonesia, which may become important consumers, would also affect coal production.

[8] Reports of coal in the vicinity of Wonogiri and Giriwojo, for example, were publicized in early 1955.

[9] Operations at the Parapatan mine, for example, were being slowed down in 1954 in anticipation of closing because of the conversion of the interisland fleet to oil.

Experimental attempts have been carried out for many years to make coke from Indonesian coal, but to date these have been unsuccessful. There are some indications, however, that the mixture of domestic coal with imported coal may provide a suitable coke, and some authorities believe further experimentation with certain of the deposits is worth while.

BAUXITE

Indonesia has long been known to have large reserves of bauxite, but mining of this mineral dates only from 1935. In that year a mine was opened by the Nederlandsch Indische Bauxiet Exploitatie Maatschappij (Netherlands Indies Bauxite Exploitation Co., or NIBEM)[10] in Bintan, one of the Riouw Islands. In the next few years mining increased rapidly and production of the Netherlands Indies in 1940 reached 275,000 tons, or between 6 or 7 percent of the world's production. By this time mining operations had spread to several areas and consideration was being given to the establishment of a domestic aluminum industry and the construction of a hydroelectric plant on the Asahan River in Sumatra.

After World War II production was high for a short period (1950–52), surpassing the prewar peak, but then declined. Encouraged by special United States purchases, production reached a peak of 654,000 tons in 1951. By 1953, however, output had dropped to 152,000 tons and was only a little above this level (166,000 tons) in 1954. Production in 1955 increased considerably, amounting to about 261,000 tons.

Indonesian bauxite is considered to have a marginal competitive position at present. It is too far from the major consumers (the United States and Western Europe), the high freight rates pricing it out of these markets. In Japan, the major market at present, it must compete with Malayan bauxite. If Japan expands its aluminum industry the market there may be increased, and in the long run Indonesia's own consumption may rise from the present negligible amounts to considerable quantities. However, any increase in domestic demand due to the establishment of an aluminum industry based on hydroelectric power from the blueprinted Asahan project appears to be far in the future.

Reserves in prewar years were placed at 20 million to 30 million tons, or about one-fifth of the then-estimated world supply of high-grade bauxite. The deposits on Bintan, Kojan, and Angkut, and other Indonesian islands,[11] are gen-

[10] Participants in the company (as formed in 1932) included Billiton Maatschappij and Oost Borneo Maatschappij and the Government. The bauxite industry, therefore, was a joint private-Government operation.

[11] Present workings are from Bintan, the largest producer, and Kojan, which reportedly produces the best quality.

erally considered the largest known deposits of the Far East.

OTHER METALS

Iron

Indonesia has sizable iron ore deposits, but they appear to be a long way from commercial exploitation. Total known reserves are in the neighborhood of 600 million metric tons, located in Sumatra, Kalimantan, and Sulawesi. Some figures place the reserves at two to three times this amount.

Much of the ore is lateritic, containing nickel and chromium which cannot be removed inexpensively. These difficulties, plus the lack of coking coal, have left the iron resources unexploited. Nevertheless, exploitation permits have been obtained by a number of companies (mostly Dutch). Various Japanese and German companies have expressed interest in the eventual development of the ore deposits, and the Indonesian Government has indicated that it may mine iron in connection with the establishment of an iron and steel industry.

The Sumatran deposits, known as the Ranggal or Lampong deposits and located near the southeastern tip of the island, are of a higher grade than the other Indonesian ores and are free of nickel. The Lampong ore is magnetite, hematite, and limonite; the magnetite is reported as 62 to 65 percent iron content. The total "measured and indicated" reserves of this area are reported at 2 million metric tons, but in addition there are inferred reserves of some 10 million tons. Dutch companies hold concessions for this area, but have not exploited the ore. Reportedly, the Indonesian Government's present considerations of a steel industry are based on this supply of iron ore.

Kalimantan has large iron reserves near the coast in the southeast (the Sungei Duwa deposits), and other deposits are located on the neighboring island of Sebuku. The total Sungei Duwa reserves are perhaps 170 million tons, of which some 96 million tons are more or less measured. These lateritic ores, which are said to have about a 45-percent iron content, also contain nickel and chromium, and much of the ore requires nodulizing before it can be used in an ordinary blast furnace. Moreover, the pig iron made from these ores is not considered good for general use. The ore of the Sebuku deposits reportedly has an iron content of 55 percent, but these deposits have not been systematically sampled. Estimates of reserves range from 13 million to 300 million metric tons. Pending detailed exploration, the lower figure can be accepted.

The Larona deposits near the "armpit" of the large southeastern arm of Sulawesi has reserves placed at 370 million tons, with an iron content averaging about 50 percent. Although the ore is plentiful, it is not chemically or physically suited for use in ordinary blast furnaces. High nickel and chromium content is one factor which has limited its use; moreover, most of the ore is claylike. However, about 10 million tons are reported to be lump ore, which is physically better suited than the claylike ores.

"Extensive investigations" in the possible use of these ores were carried out in the 1920's with unfavorable conclusions, but interest was renewed later and there are some indications that successful treatment may be economically possible. South of the Larona deposits, on the west side of the east arm at Pamala, ore has been mined for nickel but no attempt was made to save the iron.

Java lacks iron ore deposits but some experts believe that the iron sands on the southern beaches of Central Java near Tjilatjap can be processed for small-scale steel production.

Nickel

The iron ores of Sulawesi contain nickel in workable quantities and these resources have been partially utilized. No nickel has been mined, however, in the postwar period. Although the nickel content of some of these ores is low—varying from 1 to 4 percent—the deposits are so situated that open-pit mining is possible. Total known ore reserves are estimated at about 12 million tons, of which about 5 million tons are reported to have a nickel content of 3 percent or more.

The two nickel areas, which are close together in southeastern Sulawesi, are Kalaka on the Gulf of Bone and Malili inland from the head of that gulf. The Kalaka (Pamala) area was worked in prewar years by a Dutch company and during the war period by a Japanese company. In 1938 production was 20,000 tons and in 1940, 51,000 tons; during the war some 300,000 to 400,000 tons were shipped to Japan. The Dutch company (Boni-Tolo Mijnbouw Maatschappij, a subsidiary of Oost Borneo Maatschappij) announced plans in 1953 to resume mining, but the plans did not materialize.

Insecurity in the region and legal complications regarding the sale of nickel stocks are among the problems facing the company. Some attempts have been made to interest other foreign capital to participate in further exploitation plans which would involve the erection of a modern smelter, but as of late 1955 no immediate plans for production had been announced.

Another Dutch company (N. V. Mijnbouw Celebes Maatschappij, affiliated with the Billiton Co.) has explored the Malili area, but no plans for exploitation are known.

On the basis of available information it appears that, with relatively favorable world market conditions for nickel and successful production, nickel would be among Indonesia's more promising fields for mineral exploitation.

Manganese

One of the fastest growing mineral industries of Indonesia in postwar years is manganese mining. Production in 1953 reached almost 17,000 tons (table 15), compared with 9,000 to 12,000 tons a year in the 1936–40 period. Output dropped in 1954 but still exceeded the prewar level; in the first half of 1955 alone, production totaled about 16,000 tons. All of the postwar production has been exported, chiefly from the port of Tjilatjap in Java. Western Europe, the United States, and Japan are the principal markets.

The major postwar producer has been the Karangnunggal concession in western Java operated by N. V. Algemeene Industrieele Mijnbouw en Exploitatie Maatschappij, or AIME (General Industrial Mine and Exploitation Co.), largely foreign owned, which also operates other manganese mines.[12] Prospecting has been carried on actively in the past few years by several Indonesian companies on short-term leases, and some of these were reported to be passing into commercial production in 1954 and 1955. Japanese companies also have shown interest in developing manganese mines.

Proved reserves of manganese are limited, but further investigation may indicate larger ones. The known reserves in the two main prewar producing districts in Central and West Java were reported at about 262,000 tons. Other deposits occur in Kalimantan (east of Bandjarmasin), Sumatra, Sulawesi, Timor, and on the islands of Halmahera and nearby Doi in the Moluccas, but reserve figures are not available. Considerable interest has been evidenced in recent years in possibilities of working the deposits of Kalimantan and Doi.[13]

Before the war Indonesian manganese ore was reported as of two grades—high-grade ore with about 50 percent manganese and second-grade ore with a lower percentage. The manganese content of the high-grade ore was raised to 60 percent by calcination and used in the United States for chemical purposes. In recent years the grades produced have been reported as three—the first with 46–48 percent manganese; the second, 43–46 percent; and the third, with less than 43 percent.

Despite the recent activity and possibly fair-to-good reserves, the future of Indonesian manganese mining is clouded. No local demand exists because of the lack of a domestic steel industry. Continued strong foreign demand is related to price factors, and the high production costs may outprice Indonesian manganese in the world market. Moreover, the principal foreign concession holder recently encountered difficulties in working out arrangements for further operations with local government authorities.

[12] Kliripan (in the Jogjakarta district), one of the former major sources of manganese ore, was also a mining concession of AIME but operations were not resumed after the war and in 1953 the company's concession expired. The company also holds several concessions in Central Java.

[13] In 1953 an expedition from the Indonesian Geological Service (the first geological expedition since transfer of sovereignty) went to Halmahera to investigate manganese and asbestos. Reports indicate that in 1955 efforts were being made to reopen a manganese mine in Doi, reportedly with the assistance of a loan from the Bank Industri Negara.

Copper

Indonesia has produced copper in very small amounts, most of it being in the form of concentrates obtained as a byproduct of gold mines. The total annual production in 1938 and 1939 was about 90 tons. Copper deposits are widespread, occurring at several places in Sumatra, Kalimantan, Sulawesi, and Timor, but the known quantities are small and transportation facilities are lacking for many of the localities.

Further research and investigation of copper appear to be warranted, however, in view of the relatively high price of copper in recent years. In 1954 the Indonesian Government began some exploratory work. On the basis of van Bemmelen's summary of resources one of the most promising localities in the area may be east of Lake Singkarak in Central Sumatra (near Padang).[14]

Gold and Silver

Indonesia's output of gold and silver is only a small fraction of world production, but it has been of local economic importance for centuries. The metals are widely distributed throughout the country, but the main districts have been in Sumatra, Kalimantan, and the northern arm of Sulawesi.

Although placer gold and gold-silver ores are known in many localities, explorations by the former Netherlands Indies Government and by private companies have been successful in only a few instances and considerable capital has been lost in abortive gold-mining enterprises.

Gold and silver are one industry as the deposits are found in the same areas and have been worked together. The total production for the period 1900–1940 was 123,281 kilograms of gold and 1,219,261 kilograms of silver. Prewar operations were carried on by several foreign companies and gold was panned on a small scale by Indonesians and Chinese.

Postwar rehabilitation of the larger operations has been delayed, reportedly because of the Government's decision to retain a portion of the production and because some of the mine sites were in insecure areas. However, one company, N. V. Exploratie Maatschappij Bengkalis, was rehabilitating its concessions in Central Sumatra in 1953 preparatory to full operations in 1954.

[14] R. W. van Bemmelen, *The Geology of Indonesia*, vol. II, The Hague, 1949.

Minor Metals

Lead has been worked in West Java, where lead and zinc sulfides frequently occur in gold-silver mines. Production, confined to Java, has been very small—it was reported at about 40 tons in 1940 and in the postwar period none has been reported. Lead and zinc are found in many other places but the reserves are considered too small and the transportation problems too difficult to make exploitation profitable.

Tungsten, chromium, molybdenum, mercury, titanium, bismuth, and antimony are known to exist, but quantitative data are largely lacking. Wolframite deposits occur in small quantities on the tin islands of Billiton and Singkep. Similarly, according to prewar surveys, small chromite deposits occur at several places including southeastern Kalimantan and central Sulawesi. However, these are of dubious economic value and the molybdenum of Kalimantan was reported as "in quantities too small to allow profitable exploitation." [15]

Rumors of the discovery of uranium in Kalimantan in 1954 have not been confirmed. Monazite sand is produced as a byproduct of tin workings. Production in 1953 was reported as 285 tons, but it dropped in 1954 to 10 tons (table 15). N. V. Billiton Maatschappij, the only producer, exported small quantities in recent years to the Netherlands.

NONMETALS

Sulfur

As a country with widespread volcanic activity Indonesia has abundant sulfur deposits. The deposits occur as pure sulfur incrustated in craters and on slopes of volcanoes, and as sulfurous mud and sulfur-bearing gravel in volcanic craters. The known sulfur-mud resources of high sulfuric content, which are considered most important from an economic standpoint, are limited. Those of 30 to 70 percent sulfur are estimated at about 1 million metric tons. It may be possible, however, to add to this reserve considerably by developing material with lower sulfur content through treatment by means of flotation.

Only a few of the Indonesian sulfur deposits have been exploited: they produced an average of about 13,000 metric tons annually in the period 1936–38 and reached an output of more than 18,000 tons in 1941. During the war the Japanese exported considerable quantities. The major prewar producing companies have not renewed large-scale production, although considerable interest was apparent at the time of increased world demand in 1951. Lack of satisfactory security conditions in some of the concession areas and uncertainty regarding revision of the mining laws were reportedly deterrents to development at that time. In the last few years a number of domestic companies have begun extraction on a small scale, but are reportedly facing shortages of operating capital.

[15] While no deposit appears large enough to be exploited for molybdenum alone, it may be possible to work this mineral as a byproduct of other production. It is also reported to occur in association with tin ores in Bangka, Billiton, and Singkep.

The prewar production was largely from the Kawah Patih deposit near Bandung in West Java, which was exploited by the Algemeene Industrieele Mijnbouw en Exploitatie Maatschappij (General Industrial Mine and Exploitation Co.). The second major producing deposit was in the northern peninsula of Sulawesi, which was worked by a German-owned company. Several companies held other scattered concessions. The small-scale postwar operations are in East Java and in North Sumatra.

The development of the sulfur resources in the near future appears unlikely since Indonesian sulfur generally cannot compete on the world market and the total known high-grade reserves are not large. However, if industrial development in Indonesia should increase, a greater domestic demand may well make it profitable to utilize these reserves. The expansion of the petroleum industry and the establishment of basic chemical industries and paper manufacturing could provide substantial domestic demand. Japan may also be a possible market for sulfur if production costs can be held sufficiently low.

Salt

Before World War II Indonesia produced sufficient salt for domestic needs and supplied a small export surplus which went principally to Japan; 1940 production was 431,000 tons. In postwar years reported production has fluctuated between 130,000 and 320,000 tons, and exports have been small and confined to a few years. Production dropped in 1955 and as of September it was anticipated that imports would be required to meet domestic requirements.

Indonesian salt is recovered from the evaporation of sea water. Large-scale production is centered primarily in Madura, where the Government operates evaporating pans and makes briquettes. The other major producing area is Sulawesi, where production units generally are small. Salt is processed on a limited scale in other areas.

According to the Salt Monopoly Ordinance of 1941 the islands of Java, Madura, Sumatra (except Atjeh), Kalimantan, and northern Sulawesi fall within the Government's monopoly (the National Salt Enterprise) and private production is allowed only in other areas. Salt is also sold as a Government monopoly. However, part of the northern coastal area of Java was exempted from the provisions of this monopoly in the early post-

war period and a proposed decree for reinstating the monopoly in this area in 1953 was so unpopular that moves have been made to abolish the Government's monopoly. Since the sale of salt has for many years provided an easy and lucrative means of collecting revenue, the Indonesian Government will probably try to continue the monopoly.

Salt not only forms an important element in the diet, but is essential to many industries. The fish industry, soap works, tanneries, margarine factories, and oil refineries are important industrial consumers. The development of chemical industries, such as indicated by various plans for industrial development, would increase the domestic demand above present levels.

Iodine

In prewar years Indonesia exported about 30 tons of iodine annually and was second to Chile as a world source, but in postwar years production has been small (table 15.) Only minor damage to the installations was incurred during the war, but poor security conditions and lack of personnel caused delays in getting back into production. In 1953 and 1954 only one company was producing, and the 1954 output was less than one-fourth of the prewar level.

Faced with the problem of high production costs, the industry has been unable to reenter the export market; no export of iodine or its compounds took place in 1953 or 1954. An important factor in the increased cost of production is the lower labor productivity. The normal method of iodine production has been to manufacture iodine salts in association with other chemicals. If production costs were reduced, this type of operation probably would again turn out products that could compete on world markets.

Iodine occurs in salt water springs; the greatest number are in northern Java in the district between Tjirebon and Surabaja, the present producing districts. Springs also are found in other islands including the Lesser Sunda Islands (especially Timor and nearby Roti) and Ceram (the Moluccas).

Diamonds

Indonesia has for several centuries produced diamonds from various areas in Kalimantan. Immediately before World War II production was limited to two areas: (1) The Landak-Sanggau district of western Kalimantan and (2) the Martapura-Pleihari district in the southeast portion of the island. The former may have been almost exhausted in the prewar period; production was only 175 carats in 1940. The Martapura-Pleihari area, which in the same year produced 3,292 carats, is now considered the most important area.

Except for output from workings under the Japanese occupation, Indonesian diamonds have been consumed domestically. The present workings are on an individual or family scale, the limited production being sold to itinerant traders. There is no clear indication that large-scale production could be profitable, but some Indonesian officials have expressed considerable optimism in the past few years regarding the prospects of a diamond industry.

Phosphate

Present information reveals only modest reserves of calcium phosphates and aluminum phosphates, both useful as fertilizer. However, the known deposits are all on Java and the reserves of the other islands have not been investigated. Van Bemmelen [16] states that the reserves of Java, where several enterprises were producing in previous years, are about 500,000 tons of 28 percent P_2O_5. In 1938, when production was at its highest, the total output of phosphate rock was about 33,000 tons; recorded production in 1953 was only 828 tons.

Building Materials [17]

On the basis of known reserves, Indonesia appears to be moderately well supplied with various building materials, although some areas lack them. Some of the more important known resources being utilized are mentioned briefly here.

Limestone.—Limestone is widely distributed in Indonesia, although production has been confined largely to Javanese quarries. Before the war output was reported at about 600,000 tons annually, the greater part of which was used in the building industry. Limestone suitable for cement is reported from several areas. The cement factory at Padang (Sumatra) uses limestone from a nearby area and the plant at Gresik in East Java, now under construction, will use local supplies.

Asphalt.—Natural asphalt rock occurs in considerable quantities on the island of Butung, off the southeast coast of Sulawesi. In prewar years several of these asphalt deposits were worked by a Dutch company under special contract, and the rock was shipped to Java where it was crushed and used as building material. Production in 1941 amounted to about 8,000 tons.

After the war the Dutch company resumed production but in 1954 transferred its operations to the Ministry of Public Works; a national company (N. V. Handel Intraport Maatschappij) manages the enterprise. Production dropped to 1,237 tons in 1954, compared with 2,051 tons in 1953.

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[16] R. W. van Bemmelen, *The Geology of Indonesia*, vol. II, The Hague, 1949.

[17] For a brief discussion of the cement industry, see chapter VII.

Although the Government's Department of Mining indicated early in 1955 that output was expected to reach 500 tons a month, no data are available as to the actual volume produced.

Other sources of asphalt and asphalt rock are the Palembang area of Sumatra and the Kromong Mountains near Tjirebon in West Java.

Clay and sand.—Production of clay in prewar years was reported at 30,000 to 32,000 tons—probably an understatement of the total output. Production by the many local brick and tileworks is not fully known.

Sand production in 1938 was reported as 7,800 tons. The best known quartz sand is from a coastal strip of low dunes along the north coast of East Java; plans have been made to use this sand for making glass at Tuban.

Trass.—In prewar years several companies quarried trass, volcanic tuff, near Semarang, Pekalongan, and Bandung in Java. It was used as a hydraulic mortar and to protect concrete from sea-water deterioration. Production in 1940 was about 2,200 tons.

Pumice.—In 1953 an Indonesian company obtained a permit to extract pumice from the crater Anak Krakatau in Sunda Straits to be worked into hollow brick. However, extraction operations were put off pending cessation of volcanic activity in the crater.

Kaolin

Kaolin and fine clays are known to occur on various islands, but very little investigation has been made to discover the quantity or quality available.

China clay for making ceramics and refractories is produced from the overburden of tin deposits or as a residual product from rocks rich in feldspar. Production has been largely from Bangka and Billiton and from the Tjiawi district of Java. The major producer is a Dutch company operating on Bangka. An Indonesian company was reported as ready to begin production in late 1953, in conjunction with a porcelain factory on Billiton.

Kaolin deposits considered of good quality are reported from several locations in Sumatra and from western Kalimantan.

Manufacturing and Power

Manufacturing output does not account for a large share of the total employment or national product of Indonesia, but it does make an important contribution to the economy. Moreover, as in other underdeveloped areas, it is a segment of the economy for which expansion is greatly desired and it plays a prominent role in all recent development plans. Industrial expansion has been hampered by an inadequacy of local capital, by the lack of a favorable climate for foreign investment and of technical know-how, and by import regulations which have restricted the operations of established industries dependent on foreign raw materials.

DISTRIBUTION OF INDUSTRY

Until the beginning of the 20th century the Netherlands Indies was almost exclusively an agrarian country and the small amount of established industry—sugar mills, tapioca flour mills, indigo mills—was there by way of being complementary to the major business of agriculture. From the 1920's on, however, the Government's policy shifted toward encouraging and aiding industrialization and gradually the number of industries—including some turning out nonagricultural products—increased.

By the time World War II broke out in the Pacific considerable attention was being directed to preliminary investigation of several fields, including the manufacture of steel (based on scrap metal), aluminum, paper, and chemicals. The new Republic of Indonesia inherited a country largely agrarian, with very little heavy industry but with a considerable variety of small- and medium-scale enterprises turning out light manufactures.

"Industry," including the small-scale and cottage industries, employed an estimated 3 million persons and accounted for 8 to 9 percent of the national income in 1951–52. Another estimate places industry as contributing 6.4 percent of the gross national product as of 1950.[1]

Present industries are largely of two types: (1) Processing of primary products for export or domestic consumption, and (2) production of consumer goods dependent on both domestic and imported raw material. In the first category are the refining of petroleum, sugar milling, and the processing to some degree or other of various estate products, such as rubber, tea, coconuts and palm seeds, sisal, and kapok.[2] Processing of these and of rice, cassava, and other agricultural commodities makes Indonesia self-sufficient in a variety of food products.

The manufacture of other consumer goods—including automobile and bicycle tubes and rubber shoes, radios, batteries, soap, margarine, cigarettes, and light bulbs—meets a large part of the domestic demands. Still other locally made commodities—such as textiles, glass, and paper—satisfy a smaller part of consumption needs. From an overall viewpoint, however, Indonesia is self-sufficient in relatively few items and imports most of its requirements of consumer goods as well as capital equipment (see table 21 for the amount of certain goods produced in relation to the amount locally consumed).

Lack of statistical data makes it almost impossible to determine the growth of overall industrial production. In recent years, particularly in 1953–55, output of most of the larger plants making consumer goods did not increase and some production declined. This development was largely due to difficulties in obtaining necessary imported raw materials caused by tightened import licensing and also to a somewhat inefficient distribution of the materials available. Nevertheless, the number of new small industries probably has increased to the extent that total production has held its own or increased slightly.

Manufacturing as it developed in Indonesia has been heavily concentrated on Java, primarily because of the large labor supply and market there and the island's well-developed system of transportation. According to a Government survey

[1] The first figure is from Neumark's study of the national income. See article in *Ekonomi dan Keuangan Indonesia,* June 1954. The other figure is from a study of the U. S. Mutual Security Agency as quoted by John E. Metcalf in *The Agricultural Economy of Indonesia* (U. S. Department of Agriculture publication, 1952).

[2] None of the other leading agricultural export products of Indonesia require quite as much mechanical processing as sugarcane, but the transformation of rubber into forms suitable for shipment abroad, the preparation of tea, the extraction of oil from coconuts and palm seeds, and the cleaning and pressing of kapok are processes carried out partly on an industrial basis.

Table 21.—Domestic Industrial Production in Relation to Consumption [1]

Articles for which domestic production supplies 90 percent or more of consumption		Articles for which domestic production supplies 25 to 90 percent of consumption		Articles for which domestic production supplies less than 25 percent of consumption	
Item	Percent	Item	Percent	Item	Percent
Margarine	100	Automobile tubes	82	Dry batteries	24
Frying oil	100	Paints	73	Cocoa butter	20
Coconut oil	100	Automobile tires	65	Beer bottles	14
Soap (washing)	100	Toothpaste	65	Paper (writing and printing)	12
Cigarettes (kretek)	100	Towels	61	Socks	9
Cigarettes	100	Radios	58	Printing ink	7
Woven sarongs	100	Glass jars	57	Matches	7
Bicycle tubes	98	Electric light bulbs	55	Singlets	6
Carbonic acid	98	Chocolate powder	45	Washbasins	4
Soap (toilet)	97	Cement	36	Food containers	3
Bicycle tires	92	Yarn	33	Cigarette paper	3
Chocolate products	90	Ink	31	Packing paper	1
Beer	90			Handkerchiefs	1

[1] The source indicates these commodities as articles which *can* be produced in Indonesia in the percentages shown. In fact, however, for at least some of the items, the figures seem to represent the approximate percentages presently supplied by industry in Indonesia.

Source: Based on calculations of the Indonesian National Planning Bureau as given in article, entitled "Indonesia's Economic Developments," in *Ekonomi dan Keuangan Indonesia*, July 1954.

in 1940,[3] the number of factories employing over 20 workers in Java totaled 3,900 and in the other islands, 1,500. However, there is considerable variation in the distribution of manufacturing types. Whereas a large percentage of Indonesia's total cigarette output is from factories in Java, only a little more than half of the country's rice mills are in Java and most of the rubber smokehouses and remilling plants are outside Java.

Central Java with its numerous industrial centers is important in manufacturing; it contains the main textile centers, the cigarette factories, and many of the shops producing food products and metal products. The Djakarta-Bogor-Bandung area is the industrial center of West Java, and the Surabaja-Malang district contains most of the factories and workshops of East Java. Outside Java, with the exception of oil refining, sawmilling, and the processing of estate agricultural products, manufacturing is confined almost entirely to the few large centers. Chief among these are Medan in Sumatra, Makasar in Sulawesi, and Bandjarmasin in Kalimantan.

FOREIGN INVESTMENT IN INDUSTRY

Most of the present large manufacturing enterprises in Indonesia were established before World War II and are foreign owned. Dutch investment predominates, with enterprises in such fields as petroleum refining, cement production, paint manufacture, textile manufacture, and various types of food processing. United States interests own an oil refinery, a tire factory, a battery factory, and a margarine and cooking-oil factory. A British-owned tobacco factory is the major cigarette producer and a British company produces soap, margarine, and cooking oil. Resident Chinese control most of the rice milling and operate small plants in many industries, including textile mills and ice factories.

Indonesian private participation is largely confined to small plants and handicrafts but is gradually increasing in several fields. Aided by Government financing, Indonesian official or semiofficial groups also are now operating or will be operating soon several types of larger industries, including a desiccated coconut plant, an automobile assembly plant, a soda plant, a tire factory, and a textile bag factory.

The more important types of manufacturing enterprises—and the nationality of major capital participation in 1955—are shown below:

Type of industry	*Nationality of capital*
Food industries:	
Rice milling	Chinese, Indonesian.
Food packing	Dutch.
Beer production	Dutch.
Sugar refining	Dutch, Chinese.
Margarine and coconut oil production.	United States, British, small Chinese mills.
Desiccated coconut production.[1]	Indonesian.
Tapioca production	Chinese, Indonesian.
Textiles:	
Cotton spinning and weaving	Dutch, Chinese, Indonesian, British, Arab.
Batik dyeing	Chinese, Indonesian, Arab.
Petroleum refining	United States, Dutch.
Rubber processing and manufactures:	
Rubber remilling	Chinese, Indonesian.
Rubber tires (automobile and bicycle).[2]	United States, Chinese.
Sawmilling	Primarily Chinese.
Shoes	Swiss, Chinese.
Cigarettes	British, Chinese, Indonesian.
Radios and light bulbs	Dutch.
Dry cell batteries	United States.
Cement [3]	Dutch.
Chemicals:	
Paint	Dutch, Chinese.
Quinine	Dutch.
Caustic soda	Indonesian.[4]
Soap	British, Chinese.
Printing	Dutch, Chinese, Indonesian.
Automobile assembly [5]	Indonesian.

[1] The only plant, formerly United States owned, is now operated by an Indonesian company through assistance provided by the Indonesian Government.

[2] A new factory for production of automobile tires, now under construction, will be owned by the Indonesian Government.

[3] A second factory, now under construction, will be owned by the Indonesian Government.

[4] Government-owned plant.

[5] One of the two automobile assembly plants was owned by a United States firm until 1955. A third assembly plant, involving German capital, was in process of building as of 1955.

Note.—This listing is not based on statistical data, but was compiled as of mid-1955 from information available concerning the various industries in Indonesia. Small-scale industries are not fully covered. Nationality of capital in the case of Chinese cannot be determined; the enterprises listed as Chinese are primarily owned by resident Chinese.

MAJOR INDUSTRIAL SEGMENTS [4]

Overall data on industrial capacity (table 22) are available only for the 11 Government-con-

[3] This is the latest published information regarding the distribution of plants; however, the Department of Industry (Djawatan Perindustrian) of the Ministry of Economic Affairs has more recent, unpublished data regarding the distribution of plants.

[4] See also sections in chapters IV, V, and VI dealing with the processing of agricultural, forestry, fishery, and mineral products.

trolled industries and the coverage for these industries does not include the smaller producers. Current capacity and production data are not publicly available for most Indonesian manufacturing industries.

This section summarizes available information regarding important segments of Indonesian manufacturing. It should not be considered, however, as giving a complete picture. Moreover, some of the information, especially that concerning recent developments, is based primarily on press reports, the accuracy of which cannot be fully verified.

Table 22.—Licensed Capacity of Controlled Industries,[1] 1953–54

Industry and unit of capacity	End of 1953	End of 1954		
		Total	Java	Other islands
Printing works 1,000 sq. meters of printing per hr	2,622	2,777	2,424	353
Rice milling works horsepower	54,733	56,607	41,009	15,598
Spinning mills spindles	67,000	98,000	94,000	4,000
Weaving mills hand looms	67,746	75,435	71,419	4,016
Do machine looms	12,994	12,480	12,219	261
Knitting mills knitting machines	545	700	674	26
Textile printing works machines	8	18	18	-------
Cigarette works 1,000 cigarettes per minute	199	199	178	21
Iceworks tons per month	34,498	34,399	22,676	11,723
Cooking pan works do	521	510	441	69
Rubber remilling factories 1,000 tons per year	158	158	2	156
Dock companies 1,000 tons per month	5,723	5,682	3,910	1,772

[1] The controlled industries are licensed by the Department of Industry (Djawatan Perindustrian) of the Ministry of Economic Affairs.

Source: Bank of Indonesia, *Report for the Year, 1954–1955*. Based on data of the Department of Industry.

Food, Beverages, and Tobacco

Sugar, margarine, and cooking oil are the major factory-produced food products, but rice milling, carried on in small-scale units throughout the country, is undoubtedly the single most important type of food processing. Desiccated coconut and tapioca are processed in factories. Small establishments prepare meat, fish, baking goods, various native food products,[5] as well as candy and other Western-type products. Beer and soft drinks are produced by foreign-owned companies. The manufacture of tobacco products, particularly cigarettes, is a sizable industry.

Only about a fourth of the Indonesian rice crop is milled by machinery, the rest being processed by simple hand methods. Machine milling is carried on in some thousand or more mills, scattered throughout the country but most numerous on Java. The majority of the mills have long been Chinese owned; for example, it is reported that in West Java only 20 of the 218 mills were Indonesian owned as of 1952. Undoubtedly some increase has taken place in Indonesian ownership in the past year as a result of the Indonesian Government's requirement in mid-1954 that all rice-hulling mills must be owned by Indonesians,[6] but it is extremely unlikely that great strides in this direction have been accomplished in view of the scarcity of local Indonesian capital for the purchase of rice mills.

Before World War II, when Indonesia was a major sugar producing and exporting area, sugar mills numbered some 185, but as of 1954 only 55 were in operation and production was below that of prewar years. Most of the larger sugar mills are operated by foreign-owned producers although a considerable number are owned by local capital, primarily Chinese. In addition to the factory production, small cane-pressing mills are operated by diesel engines and several thousand small mills are operated by cattle power. The output of these enterprises is not known. The Indonesian Government is providing assistance to sugar mills. Loans are reported by the Bank Industri Negara, and the Government is also helping in the construction of the only new Indonesian postwar mill, at Jogjakarta.

Production of margarine and cooking oil is largely concentrated in two foreign-owned companies, one British with a large plant in Djakarta (Unilever) and the other American (Procter and Gamble), located in Surabaja. These two companies use domestic copra—allocated through the Copra Foundation (Jajasan Kopra)—as their primary raw material, and import the other necessary supplies, particularly tinplate.[7] Both products are sold entirely in the domestic market although their use is confined to the relatively small percentage of the population able to afford them. A recent report that the Indonesian Government is interested in oil extraction from coconuts and peanuts indicates possible expansion in the production of vegetable oils.[8]

A modern desiccated coconut plant, built at Sukur in the Minahasa district of northern Sulawesi a few years ago, was operated for some time by an American company (Peter Paul) and small shipments were made. This Government-owned plant, which never ran at capacity, is now operated by the Copra Foundation (Jajasan Kopra). To date it has not been successful in competing in markets abroad with desiccated coconut from the Philippines and other countries, and the domestic Indonesian market for this product is very limited.

Tapioca has long been processed in a number of small factories, but most Indonesian cassava is prepared at home by boiling or frying or by drying or grating into a coarse meal. In 1939 some 200 plants were recorded, producing several hundred tons of tapioca for domestic and export use, but

[5] Among the various food products produced in small establishments are *krepuk* (crisp thin wafers made of tapioca flour) and *trassi* (fish paste).

[6] Indonesian Government Regulation 52 of July 2, 1954.

[7] Margarine as well as cooking oil is commonly packed in tins because of the general lack of refrigeration.

[8] Report of July 1955 that the Indonesian Government plans to purchase a complete extraction plant to be used for extracting oil from coconuts and peanuts.

reported postwar production has been lower. Bogor and Bandung in West Java are the main centers of this industry.

Meat production is largely carried on in small abattoirs, and the slaughtered animals are consumed within a comparatively short distance of the plants. Meat and fish canning is very limited. Small meat-canning factories have been established on the islands of Bali and Timor, and at least two small fish canneries are operating. Drying and salting fish and making fish preparations are common small-scale industries throughout Indonesia.

Beer production, largely for the foreign population,[9] is primarily in the hands of two Dutch companies. Soft drinks are produced by several European and Chinese companies; several American companies sell concentrates for soft drinks and in 1954 a Coca-Cola bottling plant was established in Djakarta. Milk consumption is extremely limited in Indonesia but interest in the establishment of milk plants [10] has increased.

Cigarette manufacturing is extensive, with production on a large scale by Western firms and on a medium and small scale by domestic producers. The output of standard machine-made cigarettes in 1954 was estimated at 10 billion pieces. The major producer was the British-American Tobacco Co. This company produces several brands, some of which are blends of imported and domestic tobaccos and others are blends of various domestic tobaccos. *Kreteks* (native clove cigarettes) are manufactured by rather modern machinery in several factories and by hand-operated machines, producing one cigarette at a time, in hundreds of small establishments, chiefly in Central and East Java.

Textiles

Indonesia's textile requirements—consisting largely of cotton goods—are generally considered to be about 10 to 11 meters per person per year, or a total of about 800–880 million meters. According to recent production data only about half of this amount of cloth is woven in Indonesia and almost all (probably about 90 percent) is produced from imported yarn. Textile products constitute, with the possible exception of food, the single largest group of Indonesia's imports, accounting for about 15 to 20 percent of total imports in recent years.

Cotton spinning is concentrated in the hands of 7 companies, which had a combined capacity of about 126,500 spindles as of 1954.[11] Central Java is the main center of the spinning industry, with plants at Tegal, Semarang, and Tjilatjap; others are located in East Java (Pasuruan), in West Java (Bandung), and in Sulawesi (Makasar). Dutch capital owns several of the largest of these plants; only the new plant at Tjilatjap is owned by Indonesians.

The total estimated weaving capacity of Indonesia in 1954, on a single-shift work basis, was as follows (in millions of meters of cloth): [12]

Hand looms	143.0
Hand looms, with some use of power	209.7
Machine looms, single	66.8
Machine looms, double	25.8
Total	445.3

As in the case of spinning, weaving is concentrated in Java, with West Java predominating—probably two-thirds of the total weaving capacity is in West Java. Weaving plants are owned by foreign companies (Dutch and British), by resident Chinese, and, to a considerable extent, also by Indonesians. Whereas spinning is concentrated in a few factories, weaving is carried out only partly in factories with power looms; much of the total production is on simple hand looms scattered in many small units. According to the Ministry of Economic Affairs, production has amounted to about 80 or 82 million meters of material in recent years, including gray piece goods, sarongs, slendangs, towels, and other fabrics.[13] Production of the main mills is shown in table 23.

Table 23.—Production of Main Weaving Mills, 1951–54

Item	1951	1952	1953	1954
Number of mills:				
Total	46	72	76	73
In operation	42	61	67	65
Yarn consumption ... tons	4,393	6,056	8,600	9,200
Production:				
Piece goods [1] ... 1,000 meters	22,829	29,118	42,829	46,145
Slendang ... 1,000 pieces	237	113	71	14
Sarong ... do	2,889	3,224	3,579	3,925
Towels ... do	538	1,863	2,779	2,611

1. Of unspecified width and quality.

Source: Bank of Indonesia, *Report for the Year 1954–1955*. Based on data of the Central Bureau of Statistics (Kantor Pusat Statistik).

The spinning of cotton yarn and the weaving of cotton cloth, especially the former, are among the industries which the Government is trying to encourage. Relatively little expansion has occurred, however, owing to the scarcity of capital, to lack of "industry-mindedness" on the part of Indonesians, and to difficulties in obtaining foreign exchange allocations for bringing in the required machinery and raw materials. Moreover, the expense of textile production in Indonesia is sufficiently high that foreign textiles of the same quality can be imported at a lower cost. Although the wages in Indonesian mills are lower than in mills of Western countries, productivity is also

[9] In recent years, however, the use of beer by the Indonesian population has increased in urban centers.

[10] One reported venture is the plan to establish a soy milk factory in Jogjakarta. Others are based on the reconstitution of dried milk.

[11] The licensed capacity shown in table 22, which gives capacity as 98,000 spindles, is believed to understate the total capacity.

[12] Data from Indonesian Department of Industry (Djawatan Perindustrian), Ministry of Economic Affairs.

[13] These figures may underestimate the total production since they are based on summary data only and no allowance has been made for incomplete returns.

low, resulting in comparatively high labor costs per yard of finished goods.[14]

Knitting mills, which produce primarily underwear, sport shirts, and socks, are scattered throughout the larger centers of Java and also operate in a few centers in the other islands, particularly in the Medan area of Sumatra. Production has grown rapidly in the past few years. As of 1954, 33 knitting factories with 525 knitting machines were reported. Available data for 1953 show that 14 reporting mills used 720 metric tons of yarn and, in 1954, 10 reporting mills used about 550 tons. Output in 1953 was reported as about 269,000 singlets, 52,000 undershirts, and 164,000 sport shirts.[15]

The *batik* industry, i. e., the dyeing of cotton cloth by the traditional Indonesian wax process, is typically a small-scale and medium-scale one. Most of the production of batik in Indonesia today is centered in Jogjakarta, Surakarta (Solo), Pekalongan, and Garut, and is coordinated by two large organizations [16] which supply cambrics, wax, dyes, and other needed materials to their member producers and handle the sale of their output. In prewar years about 100 million yards were printed annually and tens of thousands of persons were engaged in this aspect of the textile industry.

As of 1950 it was estimated that about 17.3 million batik sarongs were produced, which at about 2½ yards per sarong meant a production of about 43 million yards. Incomplete production data for recent years indicate increases since 1950, and the prewar level of this industry has now been reached. Indonesian weaving mills produce only a part of the cambric used in batik sarongs; much is supplied by imports, especially from Japan and Western Europe.

Some interest has been shown in the manufacture of textiles from ramie. Ramie is grown in Sumatra and research in cultivating this fiber is being carried on. Toward the end of World War II a Japanese firm built a small ramie-spinning mill in North Sumatra, but with the end of the war it was closed and apparently later dismantled. As of early 1955, plans were under way for the establishment of a mill in the Medan area, and arrangements were being made to import spindles from Japan.

Heavy textile products—twine and bags for carrying agricultural products—are manufactured in some quantity. In Java locally produced rosella fiber (similar to jute) is used in a bagging fabric mill at Surakarta (Solo) and will be used at a new Government-owned factory near Surabaja. In prewar years, Indonesia's output of bags was estimated at about 10 million units, but postwar production has been lower. Many of the bags are used for sugar and salt.

[14] One large foreign-owned weaving mill in East Java, for example, reports that, whereas in Europe a single worker handles four or more nonautomatic looms, in Indonesia a worker handles only one or two.

[15] No production data are available for 1954, but output is believed to have increased.

[16] The United Batik Concerns of Indonesia and the All-Indonesian Federation of Batik Cooperatives, the commercial branch of which is called the Batik Trading Co.

Rubber Processing and Manufactures

The processing of rubber into latex or sheets for export is an important industry, centered in the rubber-producing areas of Sumatra. Aside from production on the foreign-owned estates, rubber-remilling factories are largely in the hands of Chinese. However, much of the remilling of Indonesian rubber is done in the mills of Singapore. Efforts are being made by the Indonesian Government to expand processing facilities for smallholders' rubber and to reduce the rubber trade between Sumatra and Kalimantan and Malaya, but they have met with only limited success.

The manufacture of rubber products includes automobile and bicycle tires, soles for rubber shoes, and numerous small rubber products. Automobile tires are at present manufactured only in the United States-owned Goodyear plant at Bogor, which supplies almost all of the present domestic requirements. A Government-owned factory is being completed, however. Bicycle tires are made by the Goodyear plant and by a number of smaller plants, most of which are Chinese owned. The largest of these is the Java Rubber Factory, Ltd., Djakarta. Total production of automobile and truck tires numbered about 327,000 in 1955; the production of bicycle tires was reported at about 2,600,000 in 1954.

The Indonesian Government, anxious to "break the monopoly on this non-Indonesian" industry, is encouraging the establishment of tire factories. As of mid-1955 the press, in reporting on the Government-owned tire factory nearing completion in the Djakarta area, indicated possible plans for several other tire plants.

Metal Manufactures

Indonesia has no basic iron and steel industry or other basic metal manufacturing. Metalworking industries are confined largely to three types [17]—manufacture of simple tools, implements, and household utensils; foundry operations; and the assembly of vehicles.

As in other nonindustrialized countries, Indonesia has shown considerable interest in developing a basic iron and steel industry, but informed observers hold differing opinions as to whether such an industry is economically feasible. Although Indonesia has coal it is not of coking quality and the major iron ores contain impurities.

[17] In addition to these three main types, wire is manufactured in some quantity and nails are being produced in increasing amounts.

As of late 1955 German experts were expected to start a survey of the possibilities of an iron and steel industry within the next year. The proposed development of an aluminum industry, based on the bauxite reserves of Sumatra and using the hydroelectric power of the Asahan falls, has met with somewhat more general approval as a feasible long-term project. Copper refining and rolling mills have also been mentioned as possible future metal industries.

The local manufacture of hoes, sickles, knives, axes, and other small hand tools is carried on in machine shops in the cities and larger towns and by blacksmiths in the villages. No reliable statistics are available on production or on the number of workmen employed, but output is sufficient to supply most of the hand tools, especially the *patjol*, a native type of mattock, used by Indonesian farmers. Scrap metals, available in urban areas, are common raw materials.

The foundries and machine shops of Indonesia are equipped to make large and small castings, to overhaul and repair heavy machinery (such as that used in sugar mills or textile factories), and to manufacture preassembled bridges, railroad cars, and steamrollers. However, no regular production is undertaken and overall output is not large.

Most of the metalworking shops, which are largely Dutch or Chinese owned, have rather old equipment since little replacement has been possible owing to foreign exchange difficulties and to uncertainties regarding the future of large industrial installations. The foundries and shops are principally in cities in Java (Djakarta, Bandung, Bogor, Tjeribon, Jogjakarta, Malang, Pasuruan, Samarang, Tegal, and Surabaja), as well as at Medan and Palembang in Sumatra and at Makasar in Sulawesi. The Government has its major railroad shops at Bandung.

Two automobile and truck plants located in the Djakarta port area can assemble several thousand units annually. The larger of these is the former plant of General Motors Corp., which was recently reopened by a new company (Gaja Motors), a Government-controlled concern financed by the Bank Industri Negara. The other plant is operated by Indonesian Service Corp., a private domestic company. A plant for the assembly of German cars is under construction at Surabaja.

Indonesia uses large numbers of bicycles for local transportation, and imports both complete units and parts for assembly. Several assembly plants are in operation and plans for establishing several new ones have been reported in the past year. Considerable interest has been shown in starting the manufacture of bicycle parts, with the hope that eventually the fabrication of virtually all component parts will be possible within Indonesia.

Chemicals and Drugs

No sizable basic chemical industry exists in Indonesia, and almost all fertilizers [18] and industrial chemicals as well as other types of chemicals and drugs are imported. Some sulfuric acid, carbonic acid, and oxygen are made, but production data are not available.[19] Only a few products which can be included in the general category "chemicals and drugs" are produced in quantity—turpentine and rosin, soap, paint, matches, dyes and inks, and quinine. However, chemical manufacture has high priority in Government planning; preliminary overall plans for economic development call for the production of caustic soda, ammonium sulfate, and nitric and sulfuric acid.

Indonesia will start soon to produce caustic soda. The country's first soda plant, built by the Government's Salt and Soda Monopoly of the Department of Justice, is expected to be opened in 1956. When operating at capacity the plant, located in East Java, is expected to supply about a fourth of Indonesia's current needs.

Factories producing rosin and turpentine are located in the pine forest area of North Sumatra. The largest processing plant was that of the Government (Ministry of Economic Affairs) estate near Takengon, which was destroyed by fire in 1955. Turpentine has been exported (mainly to the Netherlands) and rosin, the product for which the industry was established, is used in the batik industry.

Soap is produced in some 12 factories and in many smaller units throughout the country. Annual production as of several years ago was reported at between 65,000 and 70,000 tons. The plant of Unilever Inc. (British-owned), which also produces cooking oil and margarine, has been expanded since the war and is reported to be the largest soap factory in Southeast Asia.

Most of the small and medium-sized factories in various cities are owned by Chinese. In general they only manufacture "wash soap" (*sabun tjutji*), which is sold in surrounding communities. In northeastern Sumatra, for example, more than 30 such plants were reported in 1953, about half of them being located in Medan. Raw materials used in soap manufacture, except caustic soda and soda ash, are available in Indonesia, which has large supplies of vegetable oils and salt.

Two paint factories, started in the late 1930's, produce considerable quantities of paint but do not supply all of the country's needs. Both firms are Dutch owned. Smaller paint plants are operated by resident Chinese. The first plant operated by Indonesian interests was opened a few years ago.

[18] Local production of fertilizers is confined almost entirely to natural phosphates, especially rock phosphate.

[19] Much of the sulfuric acid is produced by the oil companies, which use their own output; carbonic acid is produced in connection with breweries; and oxygen is made in connection with iron works and other industries.

Matches are produced in several centers. The needed raw materials are supplied by local timber and imports of chemicals. Several factories are in Djakarta—at least two are Dutch owned—and other factories are in Medan and Siantar. Recently a factory was built in Semarang, reportedly the first in Central Java, and another is in East Java near Surabaja. Match production is among the industries the Government desires to expand.

Modern synthetic pesticides are not manufactured in Indonesia, but locally grown derris root is processed in two factories and several small firms produce pyrethrum. As of early 1955, a small DDT factory was reportedly being established and several firms bottled a household insecticide in which DDT was mixed with a petroleum solvent. Some observers believe pyrethrum processing has promise for further development.

Indonesia has historically been a major producer of a few crude drugs for export and produces considerable amounts of native drugs. The major drug product manufactured in quantity is quinine. A Dutch-owned factory located in Bandung predominates in producing quinine salts (particularly quinine sulfate) from cinchona bark. Iodine, which formerly was exported, is processed into medicines sold domestically. With a great increase in the importation of antibiotics, some attention has been given to mixing and packaging of such products. For example, one of the major importers and wholesalers of pharmaceuticals in Djakarta recently announced plans for a plant to package penicillin.

A few plants that also produce rubber or metal products are molding plastic articles, chiefly household utensils. However, no plastic raw materials are manufactured.

Paper and Products

Indonesia is a large importer of paper and paper products—imports of newsprint alone amounted to more than 10,000 metric tons in 1954. Overall paper consumption, while low, is increasing.

Domestic paper production is limited. Output since World War II has probably averaged about 5,500 to 6,000 tons, consisting largely of writing paper, strawboard, cardboard, and cigarette paper. Most of the production is in two Dutch-owned mills on Java, but a number of Chinese-owned mills are in operation. No newsprint is manufactured.

The Indonesian Government has shown an interest in increasing the production of paper. This interest centers particularly on a proposed project for a paper-pulp factory in North Sumatra, based on the pine forests of the area. This project, included several years ago in the Urgency Industrial Plan as a long-term project, appears also to meet current approval of officials working on the 5-year plan.[20] In 1953 a legal entity was established to promote the project and orders were reported to have been placed in Europe for equipment. The plan was delayed, however, because of a lack of funds and the outbreak of revolt in the area. Preliminary plans called for a production capacity of 25,000 tons of newsprint and 18,000 tons of cellulose.

In addition to the paper-pulp project, the Government hopes that Indonesians will establish small mills using rice straw. One such attempt is being undertaken by the Bank Industri Negara. Some interest has also been shown in the possibility of paper manufactured from bagasse (sugarcane waste).

Other Industries

Electrical equipment.—The making of light bulbs and batteries and the assembly of radios constitute the major types of electrical manufacture in Indonesia, and operations are largely in the hands of N. V. Philips Fabricage en Handel Maatschappij, a Dutch company with business interests throughout the world. The company has two plants in Indonesia but only one was operating as of mid-1955.[21] In 1954, the company's output amounted to about 7 million light bulbs and 96,000 radios.

Flashlight and radio batteries are manufactured primarily by National Carbon Co. (Java), Ltd., an American-owned company. Batteries are produced also in smaller factory or workshop units.

Construction materials.—Construction materials have been in strong demand on account of the destruction and damage incurred during the war and the revolutionary period and because the increase in population has raised the need for houses. Housing requirements are met in large part by forest products, but cement and related construction materials have been in heavy demand in urban areas.

Indonesia's annual consumption of cement, estimated at 500,000 to 600,000 metric tons,[22] is being supplied by the production of one plant, heavily supplemented by imports. The single cement plant is at Padang in Sumatra; it was established before the war by Dutch capital and has since been rebuilt and expanded. Its rated annual capacity was reported at 240,000 tons as of 1953 but actual production has been 150,000 to 167,000 tons. A new Government-owned plant at Gresik in East Java, expected to be completed in 1957, has a planned capacity of 250,000 tons.[23]

[20] See chapter IX for a discussion of economic development plans.

[21] The plant at Surabaja was closed in 1954 reportedly because of difficulties in obtaining foreign exchange for the importation of parts. Production is at present concentrated in the company's newer plant in Bandung, opened in 1953.

[22] Some estimates range as high as 800,000 tons.

[23] The factory is being built by the Bank Industri Negara, using primarily funds supplied under the U. S. Export-Import Bank credit line extended in 1950. An American engineering company (Morrison-Knudsen International Corp.) is carrying out this construction job.

Rubber asphalt for road construction is being manufactured in small quantities in a plant at Semarang.

A plant is to be established for the manufacture of wallboard, using coconut bast as the raw material. Erection of the plant, assisted by Government financing, was reported to be planned as of early 1955 and some machinery ordered.

Shipbuilding and ship repair.—Shipbuilding in Indonesia has been characteristically limited to the construction of steel lighters, barges, patrol vessels, fishing boats, and *praus* for coastal and interisland shipping. The principal companies engaged in both shipbuilding and repair work are Dutch. Drydock facilities are available at Surabaja and at Djakarta (Tandjung Priok).

To maintain its fleet in good condition, Koninklijke Paketvaart Maatschappij (KPM) has extensive workshops at Tandjung Priok and Surabaja and smaller ones at Makasar and Manado in Sulawesi.

Glass.—Indonesia produces only a part of its glass requirements. Most of the glass factories are rather primitive and are owned by Chinese and Arab interests. They can meet foreign competition for low-quality glass, but do not produce high-quality types. Even glass bottles are imported in considerable quantity.

Leather and shoes.—About 20 tanning factories are in operation, of which several are fairly large. Reports of the past few years indicate that the Government is building a few new plants.

Shoes are being made in several factories and in many small shops. The largest shoe factory—that of Bata Company in Djakarta—is European owned, whereas others are owned by resident Chinese and Indonesians. Production data are not available, but estimates place the overall factory output—both leather shoes and rubber-soled canvas shoes—at some 10 million pairs annually.

Minor industries.—Indonesia has many minor industries, some of long standing. They include such varied handicraft or small-scale operations as mat weaving, making pandanus hats, producing paper umbrellas (*pajongs*), manufacturing saddlery, handbags, and other leather articles and metal utensils, and making native furniture and bricks, tiles, and other ceramics.[24] A few of the handicraft industries, e. g., "Jogja" silver, Balinese woodcarvings, and the Kendari silver filigree work of southeastern Sulawesi, have become known outside Indonesia, but many others are known only locally.

THE GOVERNMENT AND INDUSTRY

The Indonesian Government's stated intention is to promote certain types of manufacturing, and its regulatory and promotional activities should be viewed in the light of this policy, which reportedly has three main objectives:[25]

1. To stimulate industries that provide essential needs, for example, clothing and simple tools.

2. To stimulate industries that will save expenditures of foreign exchange and to discourage those requiring unnecessary expenditure of foreign exchange.

3. To promote the "harmonious growth of the industrial sector of the economy within the social framework of the country." It is considered desirable (1) to have industry provide additional income for the rural population, and (2) to achieve an overall balance between the large-scale industries located at a few centers and small-scale industries spread throughout the entire country.

Government Regulation

Some of the large-scale industries are "regulated," i. e., subject to the approval of the Department of Industry (Djawatan Perindustrian) of the Ministry of Economic Affairs. The law concerning regulation of industry dates back to the year 1934–35 of the colonial regime. At that time it was considered necessary to prevent excessive competition, to prevent the establishment of Japanese-controlled industries, and to provide Dutch home industries with a more or less guaranteed market. Although the old ordinance, which provides for the licensing of industries, is still in effect, the bases on which industry is now regulated have undoubtedly shifted. No statement of the present principles has been issued.

Ten manufacturing industries—rice milling, rubber remilling, spinning, weaving, knitting, textile printing, cigarette manufacture, printing, manufacture of pans, and iceworks—are licensed.[26] To establish or expand a "regulated" industry an application must be submitted for approval of a committee headed by the Chief of the Department of Industry of the Ministry of Economic Affairs. Other industries are not subject to direct licensing. However, their operations in most instances are to a degree restricted by the Government because of their need for Government-allocated foreign exchange to import raw materials and equipment.

In late 1951 the Committee on Industrialization divided industries into four groups and stated a general policy guide as follows:

[24] Some types of small-scale industries, at least in Java, are concentrated in specific areas. For example, almost every home in the village of Plered in West Java makes ceramic ware, the small village of Klender has about 400 workshops producing furniture and other wooden articles, Magelang in Central Java is a center of small leather tanning and processing units, and Djuwiring in East Java specializes in umbrellas. Products of these centers are marketed throughout Java and even shipped to other parts of the country.

[25] *Ekonomi dan Keuangan Indonesia*, vol. VII, No. 11 (November 1954). See article entitled "The Government's Program on Industries," by the Institute of Economic and Social Research, University of Indonesia.

[26] Dock companies are also subject to licensing.

1. Industries reserved for the state. These include public utilities and industries connected with defense.

2. Industries reserved for private Indonesian interests. These consist of small-scale industries which Indonesians have traditionally operated.

3. Industries open to joint participation of foreign and Indonesian interests with Indonesian control (at least 51 percent of shares to be held by Indonesians). If Indonesian private capital is not available, the Government's Bank Industri Negara would participate on the Indonesian side.

4. Industries open to foreign as well as Indonesian interests. In approving such foreign enterprises the hiring and training of Indonesians is a necessary condition.

In the period since 1951 until recently no new clear-cut statement had been made regarding the ownership or control of new industries. Some officials indicated these general criteria still held, and this classification of industries kept cropping up in later plans within Government circles. Other officials, however, stated that decisions were not on the basis of these criteria, but entirely on an ad hoc basis. The Government's foreign investment statement of December 8, 1955 (see chapter I) essentially restated the four general categories listed above.

It termed industries in category 3 as "basic industries" for which, in some cases, exceptions would be made for a transitional period. No lists of particular types of manufacturing were given for categories 3 or 4 above when the four groups were formulated in 1951, nor were such details given with respect to the groups as restated in December 1955. The actual scope open to foreign enterprise even under these criteria is therefore not known and each proposed industrial enterprise must be negotiated on an individual basis.

Government Participation and Aid

The Government is an active participant in the several new large industrial enterprises which have been established in the last few years and has also taken over several manufacturing enterprises formerly managed by foreign private capital.

Aid to industry in the Netherlands Indies was primarily directed to the small- and medium-size native enterprises. Perhaps the most important phase of the Government's efforts to promote industrialization was a program of technical education which involved the use of model Government plants which sought to provide research services and to train craftsmen who could work independently or in small groups. This type of assistance continues and is being increased under the Indonesian Government.

Aid to small-scale enterprises is under the jurisdiction of the Department of Industry of the Ministry of Economic Affairs. The Scientific Research Section of this Department, which dates back to the colonial period, carries on a rather extensive propaganda and instruction service, with consulting offices and a staff to give technical and economic instruction. It also appropriates funds for the central production plant (*induk*) [27] program and administers a loan-mechanization program for small industries.

To provide the basic engineering facilities, services, and trained personnel for implementing the Government's program of industrial development, the Department of Industry maintains the following seven development and training institutes: Industrial Development Institute (Djakarta); Chemistry Institute (Bogor, with extension services in Surabaja and Makasar); Materials Testing Institute (Bandung); Leather Institute (Jogjakarta); Textile Institute (Bandung); Ceramics Institute (Bandung); and Batik Institute (Jogjakarta).

These institutes attempt to devise new processes and methods and to improve the quality of products while reducing their costs; train personnel in new methods; and help the industries in their technical problems. They are particularly important as serving centers for the central production plant program and the small-scale private industry loan program. Both programs have received assistance from the United States through the International Cooperation Administration. Specialists of United Nations agencies have also given technical guidance to the centers.

The Government also has plans to assist to a limited degree the new developments and improvements in medium-sized industries.[28] These are financed through: (1) The Department of Industry of the Ministry of Economic Affairs; (2) Government banks, particularly the Bank Industri Negara although in some cases also through the Bank Rakjat Indonesia; and (3) Government agencies such as the Credit Foundation (Jajasan Kredit), the Department of Transmigration, and various organizations handling a particular product, such as the Copra Foundation (Jajasan Kopra).

Priority in assisting medium-sized businesses appears to be for labor-intensive industries and industries which process domestically produced raw materials. Within the framework of this program preparations reportedly have been made to erect a number of new factories; a plywood factory, a chemical factory, and a glass bottle factory are among those mentioned.

[27] An induk is a cooperative parent plant through which mechanization and standardization are introduced into separate units and through which the purchase of raw materials and the sale of products may be channeled. It is hoped that through this system the character of small industries can be kept intact while the quantity and quality of their output, which is generally low, can be raised.

[28] The demarcation between small-scale and medium-scale industries is not always a sharp one, but these terms are commonly used in referring to industries in Indonesia. In some instances the distinction is according to the number of employees and in others according to power capacity. By Western standards even the medium-sized industries would be considered small.

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INDUSTRIAL OUTLOOK

Indonesian leaders generally urge industrialization, and the Indonesian Government is providing some financial and technical assistance for new enterprises, but actual industrial growth in the postwar years has been small. The number of Indonesian businessmen starting manufacturing ventures at their own risk has been very limited.[29] This reluctance is due in part to the absence of an industrial tradition and in part to the fact that manufacturing enterprises generally require a larger initial capital than the individual Indonesian businessman is willing or able to invest.

In these circumstances, industrial growth will be slow and Government assistance will not be fully effective until Indonesians are prepared to spend their energy and risk what capital they have. Foreign capital and managerial and technical know-how could materially assist the country's industrial development, but foreign capital has not found this field attractive under the conditions of the past few years.

The important position of cottage and small-scale manufacturing in the overall industrial pattern is likely to be maintained as Indonesia's industrialization grows. Encouragement of this type of industry is one aspect of the Government's industrial policy and, moreover, Western technology—which is based on labor-saving devices—may not be suitable for segments of the Indonesian economy which are underdeveloped but overpopulated. The importance attached to this level of manufacturing is indicated by the Government's measures in setting up induks for the various branches of small-scale industries.

The development of large-scale industry is also the aim of the Indonesian Government, however; and this aspect is likely to be emphasized insofar as it can be financed and successfully managed. Many of the basic industries will probably be Government enterprises, as least at the initial stages. With virtually no background of industrial development itself, the Indonesian Government will of necessity have to draw upon foreign experience. Managerial and technical skills, as well as necessary equipment, will have to be imported for many years to come.

[29] An organization, P. T. Badan Pembangunan Perindustrian Indonesia (Indonesian Industrial Development Corporation, Ltd.), which was established in 1954, is developing facilities to help Indonesian businessmen in the industrial field. Organized at the initiative of the Dewan Ekonomi Indonesia Pusat or DEIP (Indonesian Chamber of Commerce and Industry), this agency was formed "to assist in and stimulate the establishment of industrial projects." Its purposes are to work out plans for various industries; to give technical advice to industrial concerns; to serve as an intermediary between businessmen and the Government or between several industries in the establishment of new industries; to serve as an intermediary between Indonesian businessmen and foreign businessmen who are interested in investing capital; and to serve as an intermediary between credit institutions and businessmen seeking financial assistance in establishing industrial enterprises.

POWER PRODUCTION AND USE

The demand for electric energy in Indonesia is increasing, and generally the postwar period has been characterized by a power shortage. Any sizable economic development must be accompanied by increased development of power. Fortunately, an increased demand for energy will present no problem with respect to fuel. The country is well supplied with coal and oil and the large waterpower resources have been used only to a very limited extent.

The Government's attention is directed toward the expansion of power, particularly several large hydroelectric projects, but plans for financing them have not been fully developed. Meanwhile, a number of small plants are being built to meet the most pressing needs, and other small-scale projects are planned.

Indonesian per capita production and consumption of power is extremely low. As of a few years ago, the annual per capita production of electric energy was reported as about 8 kilowatt-hours for Indonesia, compared with 37 for the Philippines, 476 for Japan, and 1,190 for the United States.

The installed capacity of power plants in Indonesia in 1952 was reported at 167,700 kilowatts, or about the prewar level. Reported energy production at 591,500,000 kilowatt-hours was, however, considerably higher than in prewar years (table 24). More recent information places the installed capacity as of 1954 at about 292,300 kilowatts and 1953 production at 784,300,000 kilowatt-hours.

Table 24.—Generating Capacity and Power Production, 1940 and 1949–54

Year	Aggregate installed generating capacity (thousand kilowatts)	Energy production (million kilowatt-hours)
1940	171.0	364.0
1949	140.4	362.0
1950	157.1	n. a.
1951	[1] 159.5	[1] 538.7
1952	[2] 167.7	[2] 591.5
1953	n. a.	784.3
1954	292.3	n. a.

n. a. Data are not available.
[1] Excludes small private-company-owned undertakings. Data for Government undertakings are for 1950.
[2] Excludes small private-company-owned undertakings. Data for Government undertakings are for 1950 and the figure for one large company included in the total is for 1951.

Sources: Economic Commission for Asia and the Far East (ECAFE), *Electric Power Bulletin*, August 1954, for data through 1952. Later data are from Indonesian Ministry of Public Works and Power.

About 62 percent of the power generated is hydroelectric. Diesel plants account for almost a third and the rest is developed in steam plants. The production of power by type in 1954 is shown below:

	Millions of kilo-watt-hours	*Percent of total*
Hydroelectric	510	62
Diesel	240	30
Steam	62	8
Total	812	100

Source: Indonesian National Planning Bureau, according to an article, entitled "Indonesia's Economic and Social Developments in 1954," in *Ekonomi dan Keuangan,* July 1955.

The greatest development of power is on Java, especially West Java. On the other islands electric power production is confined to a relatively few areas and many towns and cities lack electricity. Large industrial enterprises have frequently found it necessary to provide their own power facilities. In recent years, because of the unreliability of distribution, even some smaller plants have found it necessary to set up their own auxiliary generating units.[30] Djakarta, Surabaja, Medan, and other large cities have had periods of shortages necessitating blackouts or dimouts.

The greatest use of power is by small consumers, particularly for lighting. It is estimated that about 65 percent of the total energy output is for lighting or other domestic purposes in cities and that about 35 percent is used for industry.

POWER CHARACTERISTICS AND RATES

The power generated in Indonesia is generally standardized at voltages used throughout the country, the usual system of transmission and distribution being 3-phase alternating current at 50 cycles per second. The principal voltages used for transmission are 25,000–30,000 volts and 70,000 volts. For generation and primary distribution 6,000 volts are used, while for secondary distribution 127/220 and 110/190 volts are used. Direct current is used by small private plants and by electric traction companies.

No general grid system covers the entire country. Three main high-voltage systems operate on Java—the Djakarta-Bogor, the Bandung, and the Surabaja networks—and a number of short transmission lines feed into the surrounding areas. Outside Java, distribution systems of over 6 kilovolts are very limited and most of them are on Sumatra.

The characteristics of the current (all a. c. and 50 cycles) are given below for a number of Indonesian cities:

	Phase	*Voltage*
Bandung (Java)	3	127/190; 127/220
Djakarta (Java)	3	125/200
Jogjakarta (Java)	3	127/220
Makasar (Sulawesi)	3	127/220
Malang (Java)	3	127/220
Medan (Sumatra)	3	125
Manado (Sulawesi)	3	127/220
Samarang (Java)	3	127/190
Surabaja (Java)	1	110/125; 115/200
Tegal (Java)	3	127/220

[30] According to recent reports the power shortage and the resultant high cost of power are important handicaps to the development of small industries in Java. The necessity of installing their own power supply weighs more heavily on small concerns than on larger scale enterprises. The importance of power supply to small industries is indicated by the large number of loans obtained by such enterprises for the installation of power generators.

Much of the Indonesian power equipment is old and likely to break down when overtaxed. Even in the larger cities blackouts have been common. For example, throughout most of 1955 part of Medan was dark at night because of power shortage. In a few areas, new equipment has recently been installed.

The Indonesian electricity rate structure is complicated, with 6 different tariffs (5 for domestic and commercial consumers and the other for industrial users) and 18 regional zones. According to data of the Ministry of Public Works and Power, thermal generated electricity costs an estimated 40 sen per kilowatt-hour compared with about 8 sen for hydroelectric power. The rate structure in effect since January 1953 is based on a price of 80 rupiah for 1,000 liters of diesel oil, 30 rupiah for 1,000 liters of residual oil, and 20 rupiah for a metric ton of coal. Provision is made for upward adjustments of electric rates as fuel costs increase.

Rates vary widely among different sections of the country; in Medan, Palembang, and other cities of Sumatra, for example, rates are higher than in Djakarta and Bandung. Since most areas suffer from a shortage of electricity, local authorities have set maximum limits on the power available to domestic and commercial consumers, high penalty rates being assessed for consumption above these amounts. For industrial consumers, however, rates decrease with increased consumption. Special rates are charged for use during "restriction periods."

OWNERSHIP OF POWER PLANTS

In the colonial period, the Netherlands Indies Government was responsible for much of the development and generation of electric power. In addition to the Government's operation in this field, some nine large private companies—all Dutch owned—generated and distributed energy.

As of 1952, according to data submitted by the Indonesian Government to the Economic Commission for Asia and the Far East (ECAFE), 44 percent of the total production of energy was by Government-owned plants and 56 percent was by privately owned plants. When more recent figures become available, however, they may show a larger percentage in Government hands.

The Indonesian Government plans to nationalize the development and distribution of electric power and has taken important steps in this direction.[31] Several of the former Dutch companies have been purchased by the Government, particularly since 1952. In late 1954, when one of the large companies was nationalized, an Indonesian official estimated that about 70 percent of all for-

[31] These steps are part of the overall Government policy of nationalizing enterprises considered essential to the nation, in accordance with article 38 of the provisional Constitution.

eign electric power companies in the Republic had been taken over by the state. Thus far most of the nationalization has occurred in the field of distribution. Whereas private distributing companies have been nationalized, some related firms which produce electricity are still in private hands.

OUTLOOK FOR POWER DEVELOPMENT

The Indonesian Government is giving attention both to the short-run problem of existing power deficits and the long-run problem of developing its power potential for industrial expansion. In meeting the first problem the Government has built a number of power plants, especially on Java, in the past few years; it has not been able, however, to completely satisfy the demand. Attention has also been given to extending transmission lines and improving service, but accomplishments to date leave much to be desired. In connection with the long-run problem, the Government has made preliminary plans for several large-scale hydroelectric projects as well as additional diesel plants.

Estimates on available power resources in Indonesia are spotty and not very reliable. Waterpower reserves, which are looked upon as the most promising source for future large-scale power development, are variously estimated at 2,860,000 to 4,850,000 kilowatts.

Of the large-scale power projects under preliminary consideration, the most important are the Djatiluhur project in Java and the Asahan project in Sumatra. These are given high priority in recent development plans. The Djatiluhur dam installations, when completed, reportedly will have a capacity of about 150,000 kilowatts, sufficient power to supply the needs of West Java, where the shortage is particularly acute at present, and to provide additional power for Central Java.[32]

The project proposed at the falls of the Asahan River is one which has been considered recurrently for many years. At one time it was rejected as of questionable economic feasibility, but just before World War II the Dutch showed new interest in it. In the past year the Indonesian Government has had engineering surveys made by a French firm and now appears ready to move ahead on construction if financing can be obtained.

Associated with the Asahan power plant are plans for later construction of such high-power-consuming industries as fertilizer and aluminum manufacturing. The total planned capacity of the power plant is reported at 800,000 kilowatts, although a capacity of only 100,000 kilowatts is planned for use in the next 5 years, i. e., by 1960. Indonesian officials envisage the Asahan power project as important both in developing heavy industries and opening up new areas in Sumatra.

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[32] The proposed Djatiluhur power development project is part of a multipurpose project which includes construction of two dams on the Tjitarum River; these will provide water for irrigating an area of 100,000 hectares and enable the generation of 350,000 kilowatts of electric energy. The Djatiluhur dam has been mentioned as planned for completion in the "first five years under recent development plans," i. e., 1956–60.

Transportation and Communications

Transportation and communications facilities, which suffered damage and deterioration during World War II and subsequent military action, have largely been rehabilitated and expanded. Nevertheless, the existing facilities are recognized as needing further expansion, coordination, and improvement.

Transportation is particularly important to Indonesia because of the many islands and the great distances. To develop some areas, e. g., much of Sumatra and Kalimantan as well as the eastern islands, additional facilities are essential. In Java, on the other hand, facilities are reasonably well developed although locally they present special problems. Transportation rates throughout Indonesia are considered somewhat high.

The Government has operated for many years in the field of transportation and communications and such participation will continue and possibly expand. Facilities not Government owned are generally reserved for Indonesians. Most of the railways and the only major domestic airline are nationalized and a Government-owned fleet of interisland ships is being developed to break the longheld monopoly of a Dutch company. The Government is also encouraging Indonesian shipping lines, and regulations were issued for all port facilities to be in the hands of Indonesians as of March 1956.

Communication facilities are generally owned and operated by the Government.

RAILWAYS

Railways provide a major means of transportation in Java and Madura and are of some importance in Sumatra. Java has a fairly complete network of Government railways (Djawatan Kereta Api); Sumatra has three separate Government networks and one privately owned line; Madura has a small public system; and Sulawesi has a short public line. Except for short lines on Bangka and Billiton, the other islands have no railway transportation. In addition to these general-traffic lines, there are many privately owned short railways which haul produce and supplies for the estates, primarily in Java and Sumatra.

Java's network includes two trunklines connecting Djakarta and Surabaja (a northern route through Tjeribon and Semarang and a southern one through Bandung, Jogjakarta, and Surakarta) and three north-south lateral lines that connect the trunklines. At the western end of the island a ferry service connects the Java rail lines and the lines of southeastern Sumatra. From Surabaja a ferry crosses to Madura, connecting Java and Madura railways.

Each of Sumatra's three unconnected railway systems serves a separate and relatively well developed section of the island, linking the area to a port. The three railways are (1) the northeast coast system, consisting of two lines (one the privately owned Deli Railway Co.), which serves Medan and its port, Belawan; (2) the Sumatra West Coast Railway serving the Padang area; and (3) the south Sumatra system, which connects Teluk Betung with Kertapati, opposite the petroleum center of Palembang on the Musi River.

The reported total length of track in use at the end of 1953 (with no appreciable change in 1954 and 1955) was 6,658 kilometers, of which 6,108 kilometers were operated by the State Railways (4,697 kilometers in Java and Madura and 1,411 in Sumatra) and 550 kilometers by the Deli Railway Co. in Sumatra. Most of the routes are of a uniform gage of 3 feet 6 inches, but the gage of the Atjeh line in northern Sumatra is narrower, preventing through traffic from this line to the Deli Railway.

The railways have continued to be handicapped in the postwar period by the deterioration in roadbed and equipment which occurred during the war and early postwar period, but much in the way of repair and replacement has been done since 1950. In that year the rolling stock consisted of 699 locomotives, 2,375 passenger cars, and 16,893 freight cars, whereas by the beginning of 1954 it had risen to 953 locomotives, 2,630 passenger cars, and 22,031 freight cars.

As of 1955 diesel locomotives imported from the United States had been installed on main lines in Java, and coaches on the main lines were air conditioned. Some of the Export-Import Bank funds have been used for improving the railroads; assistance has also been provided in training railroad technicians. As of 1955 the total rolling stock was still below the prewar level, but plans

were under way to purchase additional equipment.

While repair work has been extensive almost no new construction has taken place. Proposals by the Government to extend the systems in Sumatra have not been carried out because of a lack of funds. The construction of lines on the other islands is generally considered unwarranted at present because of the limited traffic potential and the preference for roadbuilding in dense areas. However, some consideration has been given to the construction of railroads in Kalimantan, where none now exist.

In November 1955 the Indonesian Ministry of Communications announced plans for a 5-year program of streamlining and modernizing the railway system, starting in early 1956. The program—to cost 3.8 million rupiah—includes repairing and smoothing out railway beds and building new bridges and the purchase of new diesel locomotives to replace old steam engines.

Data on railway traffic (table 25) indicate increases in freight tonnage since 1950, but the total is still only about 80 percent of the prewar level. This poor showing results in large measure from truck competition, which has greatly increased in the postwar period. Passenger traffic, on the other hand, has approximately doubled despite the competition from buses.

Table 25.—Indonesian Railway Traffic, 1938 and 1950–54

Year	Passengers carried (thousands)			Freight carried (thousands of tons)		
	State Railways	Deli Railway Co.	Total	State Railways	Deli Railway Co.	Total
1938	48,083	4,117	52,200	6,915	844	7,759
1950	103,634	3,400	107,034	4,437	943	5,380
1951	99,321	4,450	103,771	4,816	1,120	5,936
1952	93,428	3,807	97,235	4,287	1,191	5,478
1953	107,828	3,553	111,381	4,884	1,257	6,141
1954	[1] 122,208	[1] 3,460	[1] 125,668	[1] 5,398	[1] 1,280	[1] 6,678

[1] Preliminary figure.

Source: Bank of Indonesia, *Report for the Year 1953–1954*. Based on data of the State Railways and Deli Railway Co.

The State Railways has recorded losses in its operations in recent years, the net loss being 64.8 million rupiah in 1953 and an estimated 45 million in 1954. The privately owned Deli Line has been operating at a profit.

Since World War II, the Government has taken over the management of virtually all the country's railways and plans complete nationalization. Before the war the state owned and operated a considerable portion of the railways, but there were some 12 private companies.

Freight rates of the State Railways are reportedly governed by the principle of charging what the traffic will bear, but have generally been low in the postwar period in terms of prevailing price and wage levels. Three classes of freight are recognized in the rate schedule: Goods with a relatively high value per weight unit (class I), goods with less value per weight unit (class II), and goods with relatively low value per weight unit (class III). Manufactured goods, petroleum products, fertilizers, salt, cement, most export commodities, and many foodstuffs comprise class I. Rice paddy (with stalk), copra cake, and fruits and vegetables are listed in class II. Roof tiles, kapok, sugarcane, firewood, coal, and building materials such as stones, brick, sand, and gravel are included in class III.

HIGHWAYS

Data as of 1954–55 indicate that the roads suitable for motorized traffic totaled about 75,000 kilometers.[1] As of 1951, when the total length was reported at 69,000 kilometers, some 53,000 kilometers were hard-surfaced all-weather roads—12,500 kilometers surfaced with asphalt and 40,500 kilometers with gravel or other materials.

The road system is by no means uniform throughout the country. Closely following the general pattern of economic development, it is best developed on Java and Madura, where the total length as of 1951 was 26,700 kilometers. The system on Sumatra (including the neighboring Riouw Islands, Bangka, and Billiton), second in development, consisted of only 25,420 kilometers for an area about three times as great as that of Java. Roads on the other islands varied from 8,000 kilometers in Sulawesi to 386 in the Moluccas (table 26).

Table 26.—Estimated Length of Roads, by Surface Type, 1951

[In kilometers]

Island	Asphalt	Other hard surfaces [1]	Earth and unsurfaced [2]	Total
Java and Madura	8,850	13,830	4,020	26,700
Sumatra	2,407	14,637	6,263	23,307
Riouw, Bangka, and Billiton	247	1,824	42	2,113
Kalimantan	347	2,020	940	3,307
Sulawesi	354	4,176	3,515	8,045
Bali and Lombok	309	1,486	238	2,033
Indonesian Timor	16	2,262	1,124	3,402
Moluccas	36	298	52	386
Total	12,566	40,533	16,194	69,293

[1] Includes all types of sand clay, gravel, stone, and laterite but principally consists of gravel.

[2] Unserviceable during most of the wet monsoon from November through March.

Source: Ministry of Information, *Indonesian Affairs*, March 1951.

The prewar road network in Java, Madura, and parts of Sumatra was, in general, considered adequate for commercial purposes but roads on the other islands, particularly in Kalimantan and Sulawesi, were and still are inadequate. During World War II and the troubled period that followed, roads and bridges were heavily burdened

[1] This figure does not include estate roads or roads built and maintained by private interests.

while normal maintenance was impossible. As a result, from 1949 to date efforts of the Indonesian Government in this field have been almost exclusively devoted to restoration of the prewar roads rather than to new construction, which has been negligible. And many of the roads are not in good enough repair for the increased traffic of recent years.

Considerable rehabilitation and some new construction of private roads is known to have been undertaken by the rubber estates and by the petroleum companies in Sumatra, Java, and Kalimantan.

Highway traffic has expanded rapidly. Although statistical data on highway traffic and freight movement are lacking, expansion is evident from the increase in vehicles. The total number of registered motor vehicles increased from 97,000 in 1941 to 164,000 in 1954, the most marked increases being in motorcycles and trucks (table 27). The much larger number of trucks indicates heavier freight movement by highway, which is in contrast with the decline in railway freight movement.

Table 27.—Registered Motor Vehicles, 1941 and 1954 [1]

Type	October 31, 1941	January 1, 1954
Cars	56,810	58,393
Buses	7,889	9,176
Trucks	16,493	40,821
Motorcycles	16,247	55,937
Total	97,439	164,327

[1] Excludes military vehicles.

Source: U. S. Foreign Service report. Based on data of the Indonesian Motor Club.

Of the total number of motor vehicles as of January 1954, about 70 percent were operating in Java and Madura and 19 percent in Sumatra. Djakarta had some 44,000 vehicles, or about 27 percent of the total number of Indonesian vehicles.

Although postwar road construction has been limited, the Ministry of Public Works as of early 1955 requested an allocation of some 8 billion rupiah for the construction of new roads totaling 11,655 kilometers. These were indicated as being destined for the Outer Islands, since roads on Java were considered as being in "tolerably good condition." Sumatra and Sulawesi were mentioned in connection with short-range roadbuilding plans. This project has not yet received approval of the Cabinet or Parliament, so there is no assurance that a roadbuilding program of such an extent will get under way in the near future. The realization of even a considerable portion of the program would depend on obtaining public financing, which seems quite uncertain at present.

The long-range plans of the Government envisage the ultimate lengthwise connection of the main island chain from the northernmost tip of Sumatra through Java and Bali and perhaps eventually the Lesser Sundas. The main lengthwise roads of each island would be joined to those of succeeding islands by car ferries at the narrow straits separating the islands. The most important major project in attaining this overall program, should it be approved, will be a 1,200-mile trans-Sumatra highway linking Kutaradja in Atjeh with the southernmost tip of the island.[2] In 1953 a German firm made a preliminary survey of such a highway, but to date no contract has been awarded and the project has been allowed to lapse. The very high cost of construction appears to be the major hindrance.

Considerable competition exists between highway and railway traffic, but the Government's policy toward their respective future development is difficult to evaluate. On the one hand, the railway systems are almost completely nationalized and, since they are operating at a loss, the Government may decide to use all possible means to favor them, thus reducing or eliminating the continuing deficits. On the other hand, officials have publicly recognized the uneconomic character of the railways and in some instances have indicated closing them with a view to replacement with vehicular transportation, which for the most part is operated by private companies.

During recent years the railroad service in several areas (for example in Atjeh, Sumatra, in 1954) has suffered losses as a result of the theft of goods and damage to bridges and equipment. This insecurity, coupled with the inability of the railways to furnish guards for the protection of freight shipments, tends to increase the amount of freight handled by trucks. On the other hand, however, early in 1955 the Ministry of Communications, to prevent "undesirable competition" with the State Railways, limited bus services paralleling those of railroads to short itineraries ("short" was defined as up to 120 kilometers in Java and 180 in Sumatra).[3] Rules were established also limiting the number of vehicles each bus company could operate. Further, it was anounced that freight trucking companies would not be issued licenses for long-distance hauls competing with the railroads. This policy was considered drastic and may be difficult to retain in view of the apparent public demand and preference for truck and bus service.

Although the overall policy regarding railways versus highways was not clear as of late 1955, it would seem that wherever possible the long haul will be reserved for the railways. The road network will, however, be extended as rapidly as finances permit and truck and bus pools will be further increased above prewar levels, particularly in Sumatra, Kalimantan, Sulawesi, and other islands where economic development is handicapped by the lack of transportation.

[2] One plan for this calls for improving and enlarging a small number of existing roads, but about 90 percent of the route would involve new construction.

[3] Announcement of the Minister of Communications in a press conference in January 1955.

WATER TRANSPORT

Inland Waterways

No statistics have ever been maintained regarding the volume and scope of Indonesia's river traffic. For many areas, including Java, inland waterways are of negligible importance. In other areas, however, particularly in Kalimantan and parts of Sumatra, they are the most important means of transport.

Kalimantan has four principal river systems: The Sungai Kapuas, which flows into the Straits of Karimata near Pontianak; the Barito, which flows into the Java Sea about 30 kilometers from Bandjarmasin; the Mahakam (Kutai), which flows into the Makassar Strait, near Samarinda; and the Bulungan (Kajan), which also flows into the Makassar Strait farther north near Tandjungselor.

The Sungai Kapuas in dry years (about every third year) provides a depth of only 1.8 meters even in its lower course, but in wet years it is navigable to a depth of 3 meters as far as Sintang, about 465 kilometers upstream. The Barito, which taps an area rich in rubber and coal, is the most important river of southern Kalimantan. It is navigable at a depth of 3.6 meters for about 30 kilometers to Bandjarmasin. The Mahakam (Kutai), in eastern Kalimantan, flows through an important oil region and is navigable by steamship about 280 kilometers upstream to Muarapahu. The Bulungan taps a rich coal and petroleum area in northeastern Kalimantan, but is accessible to small steamships for a distance of only about 25 kilometers.

Sumatra's several large rivers, all of which flow to the east, are partially navigable. The Atjeh, Pedir, Pase, Djamboadje, Arakunda, and Djulu Rajeu are among those passable only to small craft. Sungai Panei is navigable 155 kilometers from the mouth for vessels of 1.8-meter draft. Sungai Siak, which flows through a rubber and petroleum area, is navigable for more than 275 kilometers with depths varying from 6 to 27 meters. The Inderagiri, which crosses a coal-bearing region, provides a depth of 2.1 meters during the "good" season for a distance of 260 kilometers upstream. Similarly during the good season the Djambi (Batanghari) is accessible to steamships up to a draft of 7.3 meters for 610 kilometers upstream into a petroleum-rich area.

Interisland and Coastal Shipping

Because of the country's islands and their scattered distribution, interisland and coastal shipping are particularly important in the Indonesian transport economy. This internal trade amounted to 87.6 million cubic meters in 1952 and more than 60 percent was of Dutch nationality.

Interisland traffic at present is handled primarily by the Dutch-owned Koninklijke Paketvaart Maatschappij (KPM), or Royal Packet Navigation Co., which has for many years dominated shipping among the islands. As of 1954 it had 44 regular routes covering about 182,000 nautical miles and also had important tramp services. The company transported 701,000 passengers and carried 3,312,000 tons of cargo in 1954. The extensive traffic of this company, which also has routes to several Far Eastern foreign areas, was carried on in 1954 by a fleet of 100 ships of its own, plus 5 chartered vessels, having a total displacement of about 190,000 gross registered tons.

The Indonesian Government, which advocates state control of interisland shipping, has developed a fleet which is operated by N. V. Pelajaran Nasional Indonesia (PELNI). As of 1954 this company had 39 ships with a displacement of 22,700 gross registered tons and limited dock accommodation warehouse facilities. It is expected that over a period of years this Government-owned line gradually will replace KPM in carrying interisland traffic.[4] Private national companies engaged in coastal trade had ships with a total displacement of about 25,000 gross registered tons as of 1954.

Maritime Shipping

Indonesia is well serviced by some 25 shipping lines, many of which maintain regular stops and also provide tramp services. In 1952, the latest year for which data are available, some 14,853 vessels entered Indonesia from foreign ports; their total gross capacity was 36.7 million cubic meters.[5]

Vessels flying the Dutch flag account for the largest percentage of shipping tonnage—about 45 to 50 percent in recent years. British, American, and Scandinavian lines are the main competitors. Among the largest Dutch companies are the N. V. Stoomvaart Maatschappij "Nederland" (the Netherlands Steamship Co.) and the Koninklijke Rotterdamsche (Royal Rotterdam Lloyd). Small Indonesian sailing boats engage in foreign commerce with Singapore and other nearby ports.

Lines operating regularly in the trade between New York and Indonesia are the American President Lines, Isthmian Steamship Co., the Java-New York Line, the Prince Line, and the Java Pacific and Hoegh Line.[6] The first two are American companies and the Java-New York Service is operated jointly by several Dutch companies.

From the west coast of the United States regu-

[4] In the January 1955 press interview, the Minister of Communications stated it was the Government's policy for interisland shipping to be carried on by the Government, although coastal shipping may be carried on by private enterprise.

[5] Traffic in foreign trade records only the arrival direct from non-Indonesian ports. Most ships call at more than one Indonesian port, but this interport traffic is considered internal traffic.

[6] Other lines serving the New York-Indonesian trade are Barber, Fern-Ville Far East, and Maersk.

lar service is provided to Indonesian ports by the American Mail Line, the American President Line, Isthmian Steamship Line, the Java Pacific and Hoegh Line, the Maersk Line, the Prince Line, the Barber Line, Fern-Ville Far East, and Klaveness. The Gulf coast ports are served regularly by the Isthmian Steamship Co. and the Lykes Line, both being American companies. The Java-New York Line and the Fern-Ville Far East also provide service from the Gulf area.

Nine freight conferences function in the trade with Indonesia, but the great bulk of Indonesia's foreign trade is carried by companies belonging to the Djakarta Freight Conference.[7] This conference is composed of the leading Dutch shipping companies, several other international lines, and the interisland line, KPM. The Indonesian Government considers the rates established by this conference unduly high and indicated several years ago that it might attempt to break up the conference system in Indonesia.[8] However, the plan appears to have been dropped inasmuch as it probably would not be effective in breaking the control of the Dutch firms and would not ease the shipping situation of the Indonesian firms engaged in interisland trade.

Seaports

Some 500 ports are situated along the Indonesian coast, but many serve only praus and small ships. Around 18 or 20 ports are considered important in that they handle large amounts of cargo. Much of the interisland and coastal shipping converges at three main points from which export products are transshipped to oversea destinations and imported cargoes are distributed throughout the islands.

Tandjung Priok, the harbor for Djakarta, serves western Java, a large portion of Sumatra, western Kalimantan, and the islands between.[9] Tandjung Perak (Surabaja) is the trading port for eastern Java, Madura and the small Sunda Islands, and southern Kalimantan. The port of Makasar is a focal point for Sulawesi and the Moluccas. Much of Sumatra adjacent to the Malay Peninsula has long made use of Singapore as a shipping center, but Belawan, the port of Medan, also serves part of Sumatra. Semarang and Tjeribon are other major ports in Java, and Palembang in Sumatra handles heavy traffic. Balikpapan, Pontianak, and Bandjarmasin in Kalimantan are important, as are Pangkalbalam and Tandjung Pandan (tin ports on the islands of Bangka and Billiton, respectively) and Tandjung Pinang (major bauxite port) on the island of Bintan.

In the postwar period congestion and insecurity in Indonesian ports have given rise to many difficult problems. In 1950 and 1951, for example, cargo damage, losses from pilferage, and labor difficulties at the major ports were serious. However, harbor conditions have greatly improved and in general are considered as satisfactory as in most other Far Eastern ports.

Much effort has been spent in recent years in improving the handling of cargo. As a result, facilities are now fairly adequate in most of the major ports, although specialized pieces of equipment such as conveyors are not in use. As in the ports of other Far Eastern countries, manual labor is used heavily.

In 1954 the Government established regulations which provide that all port facilities and services, including warehouses, forwarding agencies, port transportation, and stevedoring, must be in the hands of Indonesian nationals. Whereas virtually all of these businesses have been owned by foreign (mainly Dutch) interests, according to the decree permits would be granted after March 15, 1956, only to Indonesian citizens or corporations.

This provision for rapid "Indonesianization" of port operations appears overambitious and faces enormous problems in implementation. At the present time Indonesians lack capital and technical ability to purchase and operate all of the country's harbor facilities. It seems clear that implementation of this policy will in fact take much longer than the period indicated by the regulation as issued.

AIRWAYS

Indonesia is connected with other countries by its national airline and several international lines. Also, an extensive interisland service is provided by the national line.

The scheduled international airlines currently utilizing commercial landing rights in Indonesia are: Koninklijke Luchtvaart Mij. N. V. (KLM-Royal Dutch Airlines), which operates daily flights between Amsterdam and Djakarta; British Overseas Airways Corp. (BOAC) and Qantas Empire Airways, which operate jointly five flights weekly between Singapore and Australia, connecting with flights from Europe; and Malayan Airways, which has regular flights between Palembang and Singapore and Medan and Penang and chartered flights between Djakarta and Singapore.

Scheduled international services of the national flag carrier, Garuda Indonesian Airways (GIA), consist of weekly flights connecting Djakarta and Manila, two flights a week between Medan and

[7] The following six conferences involve United States carriers in the Indonesian trade: Atlantic and Gulf-Indonesian Conference, Pacific-Indonesian Conference, Java-New York Rate Agreement, Deli-New York Rate Agreement, Java-Pacific Rate Agreement, and Deli-Pacific Rate Agreement.

[8] Press statement of the Ministry of Economic Affairs in March 1953.

[9] The practice of classifying ports reportedly has caused some delays and increased the costs of handling cargo. For example, goods from ports of South Sumatra are transshipped at Tandjung Priok (a first-class port) rather than being shipped direct from second-class ports.

Singapore and between Djakarta and Bangkok (with stops at Singapore), and additional flights weekly between Djakarta and Singapore.

Garuda Indonesian Airways, which since 1954 has been owned entirely by the Government,[10] has the exclusive concession for interisland traffic.[11] It had scheduled domestic flights to 31 points with an air net of about 27,500 kilometers as of 1954, and had plans for extension. Routes stretch from Kutardja (northern Sumatra) to Kupang (Indonesian Timor) in the southeast and to Tarakan (Kalimantan) and Manado (Sulawesi). The Moluccas do not have regular air service. The air traffic of Garuda, including its international flights, is shown in table 28 for 1952–54. Much of Garuda's equipment is American; of the planes reported in 1954, 16 were Convairs and 14 were DC–3's. Garuda employs a sizable foreign technical staff, but is training nationals as pilots, shopmen, and staff.

Table 28.—Air Transport by Garuda Indonesian Airways, 1952–54

Item	1952	1953	1954
Distance flown............million kilometers..	9.6	10.4	12.4
Freight and mail carried............1,000 tons..	14.7	15.4	15.8
Passengers carried..................thousands..	284	296	308
Planes..............................number..	38	33	44

Source: Bank of Indonesia, *Report for the Year 1954–1955*. Based on data of Garuda Indonesian Airways.

Passenger air rates within Indonesia may be computed at about 1.15 to 1.25 rupiah per mile. For example, as of 1955 the fare from Djakarta to Surabaja, a distance of about 425 miles, was 490 rupiah and that from Djakarta to Makasar (about 875 miles), was 1,110 rupiah. Cargo rate schedules are not available.

International freight and passenger rates to and from Djakarta are established by the International Air Traffic Association, and of course are not static. The following charges as of 1955 are indicative of passenger rates quoted for transportation between Djakarta and key connecting foreign cities: San Francisco, $821; Amsterdam, $616; and Tokyo, $350. As an example of international cargo rates, the San Francisco tariff to Djakarta in 1955 was $2.60 per pound ($2.29 per pound in reverse direction) for shipments of less than 100 pounds and $1.95 per pound ($1.72 in the reverse direction) for shipments over that weight.

COMMUNICATIONS

Most of the public communications facilities of Indonesia, including radio, telegraph, and telephone, as well as the postal service, are owned and operated by the Government. The nationalized status of these services reflects the historical pattern of their development under the former Netherlands Indies Government.

The most important agency in the communications field is the semiautonomous Djawatan Pos, Telegrap, dan Telephon (Post, Telegraph, and Telephone Service), or PTT, responsible to the Ministry of Communications with headquarters in Bandung. PTT, through its regional subdivisions, operates the nationwide line and radiotelephone systems, handles all of the domestic and a substantial part of the international telegraph traffic, and operates all postoffices in the country. It also advises the Ministry of Information on technical aspects of radio broadcasting, and installs and operates facilities for aeronautical communications at most of the airports. Railway communications are a responsibility of the State Railways.

Postal Service

In 1953, the latest year for which data are readily available, Indonesian postoffices dispatched a total of 158,618,000 pieces of domestic mail of which 4,247,000 were sent by airmail.

Airmail from the United States to Djakarta requires about 7 to 12 days. Surface mail requires 2 to 3 months.

Telephone Systems

The telephone systems of Java, Madura, Sulawesi, the Lesser Sundas, and almost all of Sumatra and Kalimantan are owned and operated by the National Government through PTT. Local exchanges independent of PTT are operated in Bangka by the tin mines, in Samarinda and Balikpapan (eastern Kalimantan) and in Timor by local governments, and in Medan (Sumatra) by the Deli Railway Co. The eventual transfer of these systems to PTT is probable.

As of several years ago the PTT network was composed of about 320 exchanges of which some 260 were in Java. As of 1954, Indonesia had 63,977 telephones; 9,891 of them were in Djakarta.[12] Estimates of the number of local calls placed with exchanges vary from 60 million to 90 million a year. About 80 percent of these originate in Java.

Most of the telephone exchanges are operated manually, but steps have been taken to replace some of those in major cities with automatic exchanges. Bandung and Makasar now have automatic exchanges. The present telephone system of Djakarta is considered inadequate for increased postwar requirements, and a modernized dial tele-

[10] Garuda developed as a local offshoot of KLM in 1949, when it was taken over by the Indonesian Government on a fifty-fifty basis. Subsequently, the Government bought out the Dutch share.

[11] Pioneer Airways, a private Indonesian company, has been trying for several years to gain a foothold in domestic aviation. It received an operating license in 1953 and as of 1955 offered very limited service and also made charter flights.

[12] American Telephone and Telegraph Co., *Telephone Statistics of the World,* January 1, 1954.

phone system is planned. As of late 1955 only a small part of the Djakarta network had been made automatic.

Indonesia is connected by direct international radiotelephone circuits with the Netherlands, the United States, the Philippines, Australia, India, and Singapore. The principal cities within the country are connected by radiotelephone circuits operated by PTT. This interisland and intra-island radiotelephone traffic has greatly increased since the war.

Indonesia is connected by telephone with the United States 2 hours each day. The quality of reception is variable. The cost from Djakarta to New York is approximately $13 for 3 minutes.

Telegraph Services

The domestic telegraph service as of 1952 was considerably below its prewar status and the line circuits, many of which were disrupted during World War II and postwar military actions, were only slowly being restored. Since 1952 improvement has been notable, but the total traffic by line circuits as of 1955 may still have been below prewar levels. Facilities for transmission by radio, on the other hand, were more rapidly restored and such telegrams have increased above prewar levels.

At the end of 1953, there were more than 500 telegraph offices in Indonesia, of which some 200 had line and/or radio terminal equipment. The others were equipped only with telephones. Among the measures being taken to improve telecommunication is the replacement of the manual Morse system by the teleprinter, and important telegraphic connections such as those between Bandung and Djakarta, Surabaja, Makasar, and Medan now transmit by teleprinter.

International telegraph cable facilities are maintained by Cable and Wireless, Ltd., over three submarine telegraph cables of which two link Java with Singapore. The volume handled is reported as above that of prewar years, but no statistical data are available regarding the number of messages sent and received.

Direct radiotelegraph communication, operated by PTT, is provided to some 11 or 12 countries, including the United States (San Francisco). About two-thirds of the total international telegraphic traffic in 1952 was handled by radio and the remainder by cable.

Telegraph service within Indonesia is slow but international radio and cable service is fairly efficient. The rate for an ordinary telegram from Djakarta to the United States was about 25 cents per word at the 1955 rate of exchange.

Radio Services

Radio broadcasting facilities in Indonesia, which are owned by the National Government, consist of a network of 58 stations referred to as Radio Republik Indonesia (RRI). Most of the stations, which operate with different transmitters on separate frequencies, are concentrated in the major cities; in some centers more than one station operates from the same studio. Stations are located at Djakarta, Bandung, Tjirebon, Surakarta (Solo), Surabaja, and Jogjakarta in Java; Palembang, Padang, Bukit Tinggi, Kutaradja, and Medan in Sumatra; Bandjarmasin and Pontianak in Kalimantan; Makasar and Manado in Sulawesi; Ambon and Ternate in the Moluccas; and Kupang on Timor.

An estimate for 1954 indicates a total of some 526,000 radio receiving sets of which about 376,000 were licensed. Although almost all are concentrated in the large cities, the use of public loudspeakers in villages makes it possible for additional numbers of people to hear broadcasts.

An important function of RRI is to inform the people of major events, domestic and foreign. Many "schoolroom classes" are conducted as part of an adult education campaign and to make up for the shortage of schools and teachers. Programs originating in Djakarta, many of which are relayed by the regional stations, are in the Indonesian language; those originating in the regional stations usually are in local dialects.

Newspapers and Periodicals

Listed in the *1954 International Yearbook Number of Editor and Publisher* are 95 Indonesian daily newspapers, of which 70 are in the Indonesian language,[13] 12 in Chinese, 11 in Dutch, and 2 in English. Some 60 of these newspapers are published in Java—19 in Djakarta; 12 in Surabaja—and 9 are published in Medan. Another source reports the estimated circulation of all newspapers in Indonesia as of 1953 at about 400,000.

Newspapers are of restricted efficacy as an advertising medium primarily because of the high incidence of illiteracy and the limited distribution of the papers, as well as their small size. None have more than 4 pages and the page size is smaller than that of most American newspapers.

The few magazines or trade journals published in Indonesia have a very limited circulation.

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[13] Including those in Javanese and Sudanese.

Economic Development

The need for economic development and the Government's role as leader in planning and carrying out such development have been recognized by outstanding Indonesians for years—even before the attainment of sovereignty. Independence was looked upon as the opportunity to develop the economy for the benefit of the people, a belief reflected in article 37 of the Provisional Constitution: "The raising of the people's prosperity is an object of continuous concern of the authorities, the aim at all times being that everyone be insured a standard of living in accordance with human dignity for himself and his family."

Serious obstacles have been encountered, however, in undertaking developmental efforts and even in preparing plans for economic growth. Although agreeing on the need for development, Indonesian leaders are divided in their opinion regarding the means of achieving it. Many believe that Indonesia can develop only through outside assistance; others, perhaps smaller in number but forming an articulate group, believe that the country can develop—even though slowly—by relying on the relatively limited source of domestic capital.

Moreover, throughout the postwar period to date, political problems have absorbed the energy of most governmental officials and political leaders, and thus have diverted efforts from tasks more directly related to economic development. The severe economic setbacks resulting from the war and the revolutionary period necessitated giving attention to rehabilitation efforts before placing emphasis on further growth. The uncertain future of foreign companies tended to limit their investment in the area, while the relatively small domestic resources and the absence of Indonesian entrepreneurs have kept down the number of private Indonesian ventures. Also the Government has been faced with an almost complete lack of trained Indonesians needed for the technical and administrative positions related to economic planning.

The continuous and heavy population increase has made even a start on real economic gains difficult to achieve. Thus, despite the great desire for economic development, Indonesia has made little progress, partly because of the magnitude of the problem and partly because of inexperience. Since economic development, however, is a political goal of high priority—one in which Indonesian leaders are committed to their people—it can be expected to receive increased emphasis in the future.

PLANS AND PROGRESS

Indonesia has not yet adopted a comprehensive program for economic expansion, although several partial plans of a semiofficial nature for agricultural and industrial development have been publicized since World War II. In 1952 a National Planning Board, consisting of Cabinet Ministers and presided over by the Prime Minister, was established to make plans and lay down principles for building and developing a sound national economy.

The National Planning Bureau, serving as the executive unit of the Board, started work late in 1953 on an overall economic and social plan which, when accepted by the Government, will form the official program for development. In the meantime, development schemes sponsored by the various Ministries are reviewed by the Bureau before being submitted to the Board for approval. Some of the earlier plans have provided general guides for most of the agricultural and industrial projects undertaken to date.

Undoubtedly, progress in economic development has been hindered by the lack of an agreed-upon plan of priorities as well as blueprints for specific projects. More serious than the lack of a unified plan, however, have been the acute shortages of managerial and entrepreneurial personnel to execute such a plan and of capital to finance development projects.[1]

Agricultural Plans

Agricultural plans of the postwar period include the Kasimo Plan, written originally in Jogjakarta in 1947 to cover a 3-year period, but operative in part beyond the period originally intended; the Wisaksono Plan; the Special Welfare Plan of the

[1] In the past few years financial problems have even curbed Government development projects that were under way.

Ministry of Agriculture (1950), which emphasized certain aspects of the Kasimo Plan but included some features of the Wisaksono Plan; and a 5-year Agricultural Plan announced in 1954.

The Kasimo Plan, which aimed first to make Indonesia self-sufficient in food and consumer necessities and, over a longer period, to raise the standard of living, stated the following as principal means of achieving these objectives:

1. Expansion and intensified cultivation of all arable lands. Forest areas in Sumatra and unused concession lands are to be brought under cultivation.
2. Higher yields through improvement of irrigation channels, soil-erosion control, pest control, and increased use of fertilizer and improved seeds.
3. Establishment of rural farming training centers and farm information centers and model *desas* (rural communities).
4. Transmigration of 20 million persons from Java to the Outer Islands.
5. Restoration of estate production.
6. Improvement in fishery and livestock production.
7. Conservation of forest resources with, however, simultaneous increase in timber production.

Although not an officially sanctioned program, the Kasimo Plan and its modification have served as the basis for various Government actions in recent years. Partial implementation of the Kasimo Plan includes Government expenditures on irrigation; the building of large reservoirs in Java and Kalimantan; the steady increase in rice production; loans of the Bank Industri Negara for the rehabilitation of estate agriculture (mainly sugar); Government assistance to fisheries, resulting in increased production; and the expansion of agricultural training. The transmigration program was generally recognized as overambitious, later targets being aimed at moving 2 million persons over a period of 5 years.

An ambitious Five-Year Agricultural Plan, prepared and announced in 1954 and set up to cover the period 1955–59, is expected to be used as a basis for the agricultural portion of the overall 5-year plan still under preparation. The agricultural plan calls for increased food and fiber production; replanting of smallholders' rubber holdings and rehabilitation of rubber estates; expansion of irrigated areas; and the transfer of people from Java to the Outer Islands.

Rice production under the plan is to be raised by the end of 1959 from a level of self-sufficiency, presently considered as 7.7 million tons annually, to 8.6 million tons and the production of animal protein is to be increased to about 1,920,000 tons of fish and meat. The larger fiber production (cotton and ramie) is aimed at providing about 25 percent of the nation's requirements. Rubber-replanting goals for smallholders total 87,000 hectares and the aim for estate production is to raise it to the prewar level.

A more localized agricultural plan, known as the Schophys Plan, has received some attention. It provides for reclaiming low-lying land in eastern Kalimantan through the use of earth-moving machinery and the settlement there of colonists from Java. As of 1955, however, only small areas had been reclaimed.

Industrial Plans

Most Indonesian economic plans, as well as public statements of the country's leaders, envisage considerably increased industrialization that will help to raise the standard of living and diversify the economy. In this way it may be possible to increase the elasticity of Indonesia's supply of agricultural produce in periods of changing price. A number of industrial plans have been formulated, some dating back to before the transfer of sovereignty.

Soon after the transfer, attention was given to preparing an industrialization plan on the basis of earlier material and in March 1951 a 2-year "Urgency Industrialization Plan," commonly referred to as the Sumitro Plan, was published.[2] It called for a series of short-term industrial projects, originally to be ready for operation in 1951 and 1952, and a number of long-term projects which were to be started during the 2-year period but with no date specified for completion.

The plan aimed at improving and expanding facilities for industrial research; extending loans and credits to cottage and small-scale industries with a view to their mechanization; establishing 23 "central production plants" (induks) to stimulate the development of small industries; rehabilitating existing manufacturing plants; and setting up large-scale industrial plants, of which those in the vital sectors of the economy would be under Government sponsorship.

The industrial projects recommended which were considered short term included printing plants, rubber remilling plants, a cement plant, a basket factory, spinning mills, knitting mills, and a jute bag factory. The long-term projects named were a caustic soda factory, a fertilizer plant (for producing sulfuric acid ammonia), an aluminum factory, a plant for processing scrap iron, pulp and paper factories, a plywood factory, glass factories, additional spinning and knitting mills, a tanning factory, and a desiccated coconut plant.

Costs of carrying out the Sumitro Plan were estimated as of 1951 at about 862 million rupiah ($226 million)—161 million rupiah ($42 million) for the expansion of research facilities, establishment of *induks*, and assistance to small industries; 179 million ($47 million) for the short-term large-

[2] The industrialization program as proposed by Dr. Sumitro, a leading economist who has been a member of several Cabinets, actually was only a part of an overall "economic urgency plan," but the industrial aspects were given greatest attention.

scale industries; and 522 million ($137 million) for the long-term large-scale industries. It was estimated that the total amount of foreign exchange required would be about 198 million rupiah ($52 million).

This 2-year plan was carried out only in small part in 1951 and 1952. It was extended in 1952 by the Ministry of Economic Affairs and since that time the Government has proceeded with partial implementation. Until completion of a Government-approved comprehensive plan, being prepared by the National Planning Bureau, the Sumitro Plan appears to have had some degree of official sanction.

Achievements under the plan as of early 1955 were still far short of the original goals. Implementation of the loan-mechanization plan for cottage and small-scale industries had been delayed, and machines ordered for these industries were still arriving in Indonesia. Most of the short-term projects which were begun had not been completed and others had not even been started. Of the 23 induks, 8 were completed and 10 were only in the initial stages of implementation. Very little progress had been accomplished on the long-term projects.

The plan as revised in 1952 placed industries in four groups: (1) Key essential industries to be financed and operated only by the Government; (2) traditional handicrafts and small-scale industries, such as batik, gold, and silver work, tin smelting, tanning, cigar manufacture, and oil processing, to be reserved for Indonesian nationals; (3) basic industries to be open to foreign participation but with majority Indonesian control; and (4) other industries to be open to foreign participation or to full control by foreigners.

Plans in Other Fields

Plans for transportation and communication and for meeting educational needs—although not expressed in terms of actual programs in the same way as were those covering agriculture and manufacturing—have been important. Emphasis on transportation has been in rehabilitating railroads by getting additional rolling stock and in obtaining Government ownership and management of the former Dutch airline.[3]

With the aim of increasing technical and managerial skills, the Ministry of Education is maintaining technical schools; the Ministry of Labor, vocational schools; and the Department of Industry of the Ministry of Economic Affairs, industrial institutes for higher level training. Expansion of training facilities, including an institute for public administration, is being planned.

[3] See chapter VIII for a discussion of developments and plans in the field of transportation and communications.

FIVE-YEAR ECONOMIC PLAN

The National Planning Bureau, responsible for overall economic planning and for coordinating the work of the various Ministries, as of late 1955 was completing a draft 5-year economic plan. After the overall plan is agreed to by the various Ministries and the Provincial Governments it will be submitted to the Cabinet for approval and finally to Parliament for ratification. Although it is not yet a finally accepted Government program and details of it have not been released, the draft plan is known both to indicate broad lines of development and to suggest specific projects. Statements by the Bureau's director in 1955 provide some indication of its general magnitude and the lines of development to be advanced.[4]

The total budget needed to finance the plan is 11.4 billion rupiah (US $1 billion, at the official exchange rate), of which one-fifth will be allocated each year. The financing is envisaged as partly governmental and partly private, but no fixed amounts are indicated. The budget is to be allocated as follows: 12 percent for agriculture, transmigration, and other projects of social improvement; 25 percent for transportation and communications; 25 percent for industry and mining; 25 percent for irrigation and multipurpose projects; and 13 percent for education, health, and social projects.

Singled out for top priority as large-scale projects to be initiated in the first year are the Asahan (Sumatra) and the Djatiluhur (Java) hydroelectric power projects.[5] A steel industry in South Sumatra was also indicated as having considerable importance. The industrial plan provides priority for expansion of the textile industry [6] and "other vital industries." [7] Opportunities will be offered, however, to nonpriority industries without waiting for the completion of priority industries.

The statements also indicate that basic industries are to be managed by the National Government while others "such as paper, glassware and the cement industries" will be left to regional governmental units. Assistance to the private sector is "not to be neglected," and such assistance will include the granting of credits.[8]

Some reports concerning the announcement about the 5-year plan have implied significant investment increases for the various developmental

[4] The summary given here is based largely on statements of Dr. Djuanda, Director of the National Planning Bureau, in press conferences held in March and September 1955 and on a reply of the Government to Parliament regarding economic development (October 1955) as reported in the press.

[5] The plan indicates that a fairly substantial power program is considered requisite to industrial development. In addition to the two major projects mentioned above, both of which are multipurpose, there are plans for other hydroelectric developments and for steam plants. See chapter VII for information regarding the Asahan and Djatiluhur projects.

[6] The first objective will probably be to bring spinning capacity up to present weaving capacity.

[7] Fertilizers, chemicals, paper, and glass are undoubtedly among industries considered vital.

[8] See chapter X for a description of present facilities for the extension of credit to domestic private enterprises.

purposes indicated above. An analysis of the present level of investment seems to indicate, however, that the plan is primarily a statement of recent governmental expenditures for various types of capital goods and technical assistance and the projection of these activities with only moderate increases for the next 5 years.[9]

The 5-year plan, as drafted by the National Planning Bureau for the years 1956–60, is aimed at balanced growth. Although much attention has been given in the press to the few large-scale projects, officials closely associated with the Bureau indicate that the plan places considerable emphasis on small-scale projects at the local level. Increased food production and the development of small industries are important aspects of the total plan.

It is perhaps a mistaken concept to look upon the 5-year plan, as drafted, as a completed plan firmly fixed for a given period. In view of the complexity of the Indonesian economy, the lack of full details regarding the country's resources, inadequate statistical data,[10] and the inseparable intertwining of economic and political objectives, changes are likely to be made as development under the plan progresses.

ROLE OF FOREIGN INVESTMENT

In the postwar period to date, Indonesia has not received much new private capital from abroad for developmental purposes, with one important exception—petroleum operations. Foreign companies in other fields have rehabilitated their former holdings, but expansion has been negligible.

The part to be played in future development by direct private foreign investment is unclear. In discussing the drafted 5-year plan, Indonesian officals indicated there will be room for private investment but that it probably will not play a large part in the near future. The scope of developmental enterprises open for participation by private capital, and the conditions under which capital can operate, may be clarified by a foreign investment policy following the installation of the first elected Government in 1956.

A Foreign Investment Committee, headed by the Chairman of the National Planning Bureau, as of 1955 was studying the possibilities of foreign investment as related to development plans. Meanwhile, decisions regarding the particular types of enterprises open to private foreign investors and the terms of participation are on an ad hoc basis within the general categories indicated under the investment policy of December 8, 1955 (see chapter I).

Consideration of foreign investment in projects in the public utility field (including transportation and communications), in trading enterprises, and in small-scale industries is highly unlikely since these are recognized fields for Government operation or for Indonesian private enterprise. On the other hand, proposals for industrial plants (other than small-scale ones), and particularly for those the Indonesian Government has pointed to as needed, can be expected to be given consideration.

Any specific project has to be worked out with the Indonesian Government and be in general conformity with its plans for priority projects. In a few cases in the past several years, the Government has approached foreign companies regarding specific projects in which it was interested—usually on the basis of a participation of foreign capital in cooperation with the Indonesian Government.

In connection with some of the earlier plans, particularly the Sumitro Plan, it was indicated that majority Indonesian participation in the capital and the management would be required for new enterprises.[11] It is not clear, however, that these conditions hold at present.

Indonesia has received economic and technical assistance from foreign governments amounting to about $300 million in the postwar period and in addition has obtained help through various agencies of the United Nations. By no means can all of this be considered aid for developmental purposes, but some of that kind has been included.

Assistance from the United States—the largest part of the total—includes grants of about $130 million for rehabilitation (administered through the Netherlands before the transfer of sovereignty and to Indonesia following independence); an Export-Import Bank line of credit totaling $100 million for capital goods extended in 1950; and technical assistance provided since 1953 totaling $3.5 million to $8 million per year. The Netherlands provided a loan in 1950 of $73.7 million. United Nations technical assistance has amounted to about $2 million. This foreign aid has probably benefited the Indonesian economy out of proportion to the amount involved, in that it provided a stimulus and direction to important sectors of the economy.

As is true of foreign private investment, the future role of foreign governmental assistance in economic development is unclear. It is certain, however, that Indonesia will require financing from abroad and will probably look to credits

[9] Additional increases may be possible in relation to Japanese reparations and the sale of U. S. surplus agricultural commodities. As of January 1956 the United States and Indonesia were negotiating an agreement for the sale of agricultural surpluses; Indonesia plans to use a large part of the payment funds for economic development.

[10] One of the major difficulties encountered by the National Planning Bureau in preparing its plan has been in compiling background statistical data. Many of the needed materials were destroyed during World War II, the Japanese occupation, and the revolution.

[11] In the case of "key" industries such as public utilities, cement factories, and chemical industries, it was indicated that the Indonesian Government was to have majority participation. Foreign investors were to be allowed to participate in these industries only under construction or management contracts.

both from foreign countries [12] and from international agencies such as the International Bank for Reconstruction and Development (IBRD)[13] and the recently created International Finance Corporation (IFC).

Foreign technical assistance is playing an important part and such aid can be expected to continue and increase as Indonesia undertakes new projects. Some of the present technical assistance is at governmental levels but private companies are also participating. Technicians of the United Nations are helping to develop Indonesia's economic program; some are attached to the National Planning Bureau and others are with the Ministry of Economic Affairs. The Food and Agriculture Organization (FAO), the World Health Organization (WHO), and other United Nations agencies also furnish assistance.

The United States Government is providing technicians through the International Cooperation Administration, primarily in the agricultural field. An American engineering firm (J. G. White Engineering Corp.) has served with the Indonesian Government in an advisory capacity for several years and is providing engineering services, particularly in the fields of transportation and communication.

The construction of a cement plant now under way in East Java is being engineered by an American company (Morrison-Knudsen International). Technical know-how is also being provided by several European countries and by Canada and Australia. For example, French engineers recently made preliminary surveys of the Asahan hydroelectric project, German geologists are investigating the Bukit Asam coal mine, and a number of Canadian mining experts are expected to help in other mineral fields.

[12] Mention has recently been made of possible credits from European countries, particularly France, Germany, and the Netherlands. Various Soviet satellite countries have also offered to finance industrial projects in Indonesia and to supply technicians, and East Germany is reported to be assisting in the construction of a sugar mill.

[13] Indonesia has been a member of IBRD since April 1954, and in the spring of 1955 an IBRD Mission visited Indonesia for a preliminary survey of the country's economy.

Financial Conditions and Facilities

An inflationary trend has characterized Indonesia's postwar financial conditions. The money supply has risen substantially, the main source of the increase having been from financing the Government's budgetary deficits with central bank funds. Budget deficits of recent years have resulted from continued heavy expenditures in the face of the lowered revenues which accompanied the decline in foreign trade following the boom period created by the Korean hostilities. Prices and living costs have moved upward throughout the postwar years, considerable increases having been recorded for 1954 and 1955.

As in other underdeveloped countries, capital formation in Indonesia is relatively small—in view of the low income savings cannot be sizable. Moreover, although the number of financial institutions appear adequate, the domestic resources which exist are not effectively mobilized for developmental purposes. Total investment, of which that by the Government constitutes the largest part, has been small, resulting in very limited economic growth.

PUBLIC FINANCE

Throughout most of its short life the Republic of Indonesia has had large Government deficits. Shortly after independence, when returns from exports were large as a result of the Korean boom, revenues were high. In 1951 a budgetary surplus was registered, but the Government has operated subsequently with large deficits, which in the years 1952 through 1954 averaged 3.1 billion rupiah annually (table 29). An unofficial forecast for 1955 indicated a somewhat lower deficit for that year.[1]

These deficits have resulted from failure of revenue to keep up with heavy outlays for the maintenance of security conditions and for developmental purposes in addition to the administrative expenditures of the Government.

The deficits have been largely financed by loans from the Bank of Indonesia, the central bank. To a lesser extent, prepayments required of importers have been used to finance Government deficits. In 1953 a profit of 1.7 billion rupiah was obtained through revaluation of gold holdings to the new basis of 11.40 rupiah per dollar.

[1] As of January 1956 the Indonesian Government estimated a budget deficit for 1956 of only about 1 billion rupiah in contrast with an estimated 2.5 billion in 1955 and 3.6 billion in 1954. The smaller deficit was based primarily on anticipated larger collections under the new import surcharge scale (introduced in September 1955) and higher revenues from direct taxes.

Table 29.—Budgets of the Indonesian Government, 1951–55 [1]

[In millions of rupiah]

Item	1951	1952	1953	1954	1955
Net expenditures	9,108	13,192	[2] 11,947	12,069	n. a.
Net revenues	10,303	9,684	9,707	8,451	n. a.
Difference (+ or −)	+1,195	−3,508	[2] −2,240	−3,618	[3] −2,500

n. a. Data are not available.

[1] All figures, which are for calendar years, are considered preliminary since Indonesian budget figures remain in a provisional status for some time. As of early 1955, for example, the latest budget which had been completely processed and for which there were definite figures was that for 1949. Moreover, the available figures on Government expenditures in relation to revenues for the same period are not comparable from 1 year to the next because of varying periods during which appropriations were kept open beyond the end of the year. For 1951, for example, this "overhang" period was 6 months—expenditures continued to be charged against the 1951 budget until the accounts were closed at the end of June 1952. In the case of the 1952 budget, the accounts were kept open until the end of March 1953. Thus, the provisional budget deficit for 1952 reported as of March 31, 1953, was substantially higher than the provisional budget deficit for 1952 as reported on December 31, 1952.

[2] Excludes transitory items, which in 1952 came to a total of 700 million rupiah.

[3] Unofficial estimated forecast made in October 1955. Later statements of the Finance Minister indicated that the deficit may be lower.

Sources: For 1951–54, data of the Indonesian Ministry of Finance and annual reports of the Java Bank and the Bank of Indonesia.

Revenues and Expenditures

Tax receipts have constituted about 65 percent of Government revenues in the period 1951 through 1954 (table 30). About 70 percent of the total tax revenue in this period was derived from indirect taxes, particularly taxes levied on imports and exports and consumption goods. The percentage of revenue from direct taxes, however, rose during the period. Whereas direct taxes constituted only about 25 percent of the tax revenue and 15 percent of the total Government revenue in 1951, it made up 38 percent and 30 percent of these revenues respectively in 1954.

The lower revenues in 1954 as compared with those of the two preceding years was due largely to the continuing decline in receipts from collections of export and import duties. With collapse of the Korean boom the volume of exports, and consequently that of imports, greatly declined; this shrinkage in foreign trade volume led to annual revenue losses estimated at 1.5 billion

Table 30.—Government Revenues, 1951–54

[Preliminary figures, in millions of rupiah]

Item	1951	1952	1953	1954
Taxes:				
Direct taxes:				
Transition tax	530	648	655	805
Income tax	152	183	229	244
Company tax	655	896	1,083	1,330
Free sales tax	198	66	22	14
Other direct taxes	36	30	38	46
Subtotal	1,571	1,823	2,027	2,439
Indirect taxes:				
Turnover sales tax	658	628	634	611
Import duties	1,404	1,396	1,283	995
Normal export duties	216	147	101	107
Other export duties	1,093	1,672	912	437
Excise taxes	746	1,180	1,355	1,593
Other indirect taxes	158	109	189	214
Subtotal	4,275	5,132	4,474	3,957
Total taxes	5,846	6,955	6,501	6,396
Net revenue of Government industries [1]	131	293	205	61
Miscellaneous revenues:				
Foreign exchange certificates and import surcharges	4,122	2,082	1,914	1,179
Surcharge on transfers of foreign exchange				296
Share of profits	41	123	87	121
Mining concessions	43	68	114	74
Court fines, etc	7	8	14	15
Foreign Exchange Institute			530	100
Other	113	155	342	209
Subtotal	4,326	2,436	3,001	1,994
Grand total	10,303	9,684	9,707	8,451

[1] Estimate.

Sources: Indonesian Ministry of Finance and reports of the Bank of Indonesia.

Table 31.—Gross Government Expenditures, 1951–54

[Preliminary figures, in millions of rupiah]

Item	1951	1952	1953	1954
General sector:				
High colleges of State	53.9	1,136.3	1,131.2	1,249.7
Finance	1,484.7	1,296.6	884.9	1,027.7
Subtotal	1,538.6	2,432.9	2,016.1	2,277.4
Security sector:				
Defense	3,269.0	3,816.6	3,875.9	3,327.4
Justice	133.3	177.6	190.0	243.4
Home Affairs	1,921.9	2,158.4	2,178.2	2,911.9
Subtotal	5,324.2	6,152.6	6,244.1	6,482.7
Economic sector:				
Agriculture	[1] 386.0	668.9	460.6	498.9
Economic Affairs	(2)	1,291.7	1,142.6	1,345.2
Financing Service	924.4	2,253.7	[3] 1,423.9	1,413.2
Transportation and Communications	194.1	322.5	371.0	424.5
Navigation	54.7	140.9	155.7	138.0
Public Works and Power	448.9	699.6	581.1	570.7
Subtotal	2,008.1	5,377.3	4,134.9	4,390.5
Cultural sector:				
Information	150.1	170.2	152.5	172.8
Education and cultural affairs	529.6	986.0	857.5	856.1
Religious affairs	96.1	153.4	178.0	209.0
Subtotal	775.8	1,309.6	1,188.0	1,237.9
Social sector:				
Health	357.4	277.0	224.5	314.0
Social affairs	112.9	127.5	154.2	193.1
Labor	35.6	61.5	51.0	72.9
Subtotal	505.9	466.0	429.7	580.0
Foreign sector	477.2	134.9	203.8	172.1
Grand total	10,629.8	15,873.3	14,216.6	15,140.6

[1] Includes expenditures for economic affairs.
[2] Included in figure above for agriculture.
[3] Excludes the gold revaluation profit of 1,734 million rupiah.

Sources: Indonesian Ministry of Finance and reports of the Bank of Indonesia.

rupiah. No adequate means were found to compensate for these losses although minor increases resulted from taxes on business profits and from excise duties on alcoholic beverages, both of which were raised in 1954.

Of the total expenditures [2] those incurred for the "security sector" are the largest (table 31). In 1954 this sector, which had large outlays for suppressing revolts, restoring security, and maintaining armed forces, but also included the Ministry of Home Affairs, accounted for about 40 percent of total expenditures. These expenditures were more than twice those of the principal economic departments, i. e., the Ministries of Agriculture, Economic Affairs, Transportation and Communications, and Public Works and Power.

The Public Debt

As of the end of September 1955, the total Indonesian Government debt was about 17.7 billion rupiah, compared with 7.6 billion at the end of 1951 (table 32). The debt had been cut by 988 million rupiah at the end of 1951, the only year in which a reduction has been achieved.

[2] It will be noted that, while the discussion of revenues refers to net revenues, expenditures are presented on a gross basis. Although annual totals for gross revenues are available, data concerning revenue breakdown are only available for net revenue, i. e., the revenue by source less receipts directly chargeable to the expenditures of the Government agencies involved. On the other hand, a breakdown of expenditures is available on a gross basis.

Table 32.—Government Debt Position, 1950–55

[In millions of rupiah]

End of—	Consolidated debt		Floating debt (internal)	Total debt	Change in total debt
	External	Internal			
1950	3,792	1,540	3,302	8,634	+1,740
1951	4,463	1,511	1,672	7,646	−988
1952	5,330	1,439	5,107	11,876	+4,230
1953	5,248	5,134	3,003	13,385	+1,509
1954	5,237	5,027	6,570	16,834	+3,449
September 1955	5,104	5,028	7,555	17,687	+853

Source: Data given in various reports of the Bank of Indonesia.

Most of the increase in the debt in recent years has been accounted for by the floating debt, which as of the end of September 1955 stood at 7.5 billion rupiah. The consolidated debt, which has remained fairly stable from 1953 on, totaled 10.1 billion rupiah on September 30, 1955. It was about equally divided between internal and external debt.

Of the total foreign debt, a large part represents prewar loans obtained from the Netherlands and the remainder covers postwar credits received from the United States, the Netherlands, Japan, Canada, and Australia. As of the end of 1954,

the Netherlands accounted for about 60 percent of the external debt and the United States almost 30 percent. The debt to the United States, consisting of credits for surplus materials, a loan of the Economic Cooperation Administration, and an Export-Import Bank credit, totaled 1,530 million rupiah (about $135 million).

Indonesia's consolidated debt as of December 31, 1954, is shown below by sources of loans:

	Millions of rupiah
External debt:	
Prewar loans:	
Netherlands	2,086
Postwar loans:	
Netherlands	756
United States	
Surplus credit	616
Economic Cooperation Administration loan	196
Eximbank	718
Japan	684
Australia	146
Canada	35
Total postwar loans	3,151
Total external consolidated debt	5,237
Internal debt:	
Public loan 1950	1,189
Bank of Indonesia	3,838
Total internal consolidated debt	5,027
Total consolidated debt	10,264

Source: Bank of Indonesia, *Report for the Year 1954–1955*.

In addition to a large indebtedness to the Bank of Indonesia, the floating debt includes amounts owed to importers for prepayments to the Foreign Exchange Fund, currency and notes put into circulation by the Government, and Treasury bills and notes.

SAVINGS AND INVESTMENT

The available data are inadequate to evaluate Indonesia's financial resources and investment expenditures. It appears that only a relatively small part of the country's national income is invested, that is, spent for goods and services having a productive purpose. According to a frequently quoted estimate, net investments have amounted to about 5 percent of the total national income in recent years; other estimates, however, indicate somewhat lower as well as higher percentages.

The scope of personal savings is quite limited. Per capita income is very low and most of the people do not have any strong tradition of saving. Institutional savings do not play a substantial role in developing capital resources. At the end of 1954 savings balances in the country's savings institutions and time deposits in commercial banks together represented about 3.5 percent of the money supply.

Other forms of savings, such as life insurance, are unimportant and the stock exchange plays a negligible role in mobilizing private savings. There is considerable evidence, however, that much of the savings in rural areas and villages takes the form of personally held cash reserves. The extent of such hoards is unknown, but they are believed to constitute an important part of total savings.

Total domestic investment in recent years appears to have been only little more than sufficient to restore and maintain the present economic status; little growth has been recorded. Government investments, though small, are estimated to represent nearly half of the country's gross investment in 1954.[3] Private investment, for which there are no data, has been very limited. Investment in industry is perhaps increasing but, if so, only at a slow pace.

Indonesian businessmen invest primarily in short-term agricultural, trade, and speculative ventures. The Chinese and commercial bankers, rather than investing in industrial development, are continuing their traditional practices, the Chinese primarily providing short-term capital for trade and agriculture and the commercial banks financing foreign trade. There also appears to have been some shifting of Chinese investors from productive enterprises to real property in the past few years as a result of inflation and the Government policy of encouraging Indonesians in business fields.

As in other less industrialized countries local investors are reluctant to take risks in new types of enterprises. As long as it is possible to make relatively large and quick profits in commercial transactions which do not require immobilization of funds over a long period of time and which can be financed in part by available credit, there is likely to be only limited interest in investment in industry. The total amount of capital in Indonesia is not large, but may be larger than commonly realized; the most critical shortage is that of private venture capital, which is so necessary for economic development.

FINANCIAL INSTITUTIONS [4]

The Bank of Indonesia

The Bank of Indonesia (*Bank Indonesia*) is the country's most important banking institution in terms of resources and statutory power. In addi-

[3] Although informal observers generally agree that the rate of investment in postwar Indonesia has been low and that domestic resources are small, there is some disagreement as to the actual levels. One important factor believed by some to be greatly underestimated is the investment made by the local governments, especially in the areas outside Java. According to Douglas Paauw, net investment in 1953 may have been about 7.5 percent of the net national income, if full consideration is taken of local government investment. (See Douglas S. Paauw, "The Role of Local Finance in Indonesian Economic Development," in *Ekonomi dan Keuangan Indonesia*, vol. 8, No. 1, January 1955.)

[4] In addition to financial institutions considered here, a number of Government agencies have certain financing functions bearing on economic development. These include the Department of Industry of the Ministry of Economic Affairs (see page 59) and the Copra Foundation. Although not a financing agency, the Indonesian Industrial Development Corporation's functions include bringing businessmen in contact with credit institutions (see footnote 29, page 60).

tion to such fiscal functions as issuing currency and holding the country's international reserves, it performs commercial banking functions. It was established in 1953 as successor to the Java Bank,[5] which had been nationalized by law in 1951.

The Bank, which assumed the assets and liabilities of the Java Bank after July 1, 1953, operates under a three-member Monetary Board. This board consists of the Minister of Finance as chairman, the Minister of Economic Affairs, and the Governor of the Bank. It is assisted by an advisory committee of nine members, representing trade, industry, and labor.

The 1953 establishing legislation defined the Bank's function in such terms as to give it more explicitly the functions of a central bank. These include regulation and stabilization of the value of the currency; exclusive issuance of banknotes, which must be covered by 20 percent in gold or the equivalent; supervision of the country's credit system; facilitation of a transfer system within the country and abroad; and performance as the financial agent of the Government. The latter includes acting as the Government's banker in financial transactions, giving assistance regarding agreements with foreign countries and organizations, administering the country's gold and foreign exchange reserves, and making loans to the Government, of which 50 millian rupiah carry no interest charges.

The Bank is required to make current advances to the Government, but is protected from unlimited demands by the provision that such advances "shall not be allowed to exceed 30 percent of the revenues of the Treasury in the budgetary year preceding the one in which the Government asks for the advances" unless Parliament gives consent.

Since its administration is subject to Government control and its operations relate primarily to Government financing, the Bank of Indonesia has not been able to pursue independent policies bearing on the volume or composition of credit. The Bank's position as guardian of the soundness of the country's credit system and credit-issuing institutions was strengthened, however, by a Government ordinance of January 1955. This explicitly invests the Bank with the right and duty to examine the books of accredited banks and credit institutions, to prohibit or limit the granting of specified types or forms of credit or credits exceeding a certain maximum amount, to determine the minimum and/or maximum rate of interest chargeable, and to require that a part of the liquid resources of every credit institution be deposited with the Bank of Indonesia, invested in Treasury bills, or otherwise used.

Only a few credit institutions are exempt from the Bank's supervision. Moreover, it has an experienced staff and is held in respect by the banking community, and thus has been able to exert some influence on the overall credit policy through moral suasion, i. e., through advice to the other financial institutions.

Besides its functions as a central bank the Bank of Indonesia is the largest commercial bank. Although its lending functions are eventually to be transferred to other banking institutions, the Bank continues to do a significant amount of general banking.[6] As of the end of 1954 its total assets were 12.2 billion rupiah, of which 8.2 billion represented advances to the Government.

The Bank of Indonesia, together with seven private foreign banks and three Government-owned banks (described below), do some 70 to 80 percent of all the banking business in the country. The chief balance-sheet items of these banks is indicated in table 33. Outstanding loans and advances totaled 2,660 million rupiah at the end of 1954, an increase of about 400 million rupiah from the preceding year (table 34). Of these 1954 credits, 64 percent had been granted to Indonesian enterprises and individuals (including semigovernmental institutions) and 36 percent to non-Indonesian enterprises and individuals.

Private Commercial Banks

Seven large foreign commercial banks finance much of the foreign trade and business enterprise of Indonesia. These include three Dutch, two British, and two Chinese banks. Private banks controlled by Indonesians have comparatively small assets but are of increasing importance.

Foreign banks.—Branches of three Dutch banks—Nederlandsche Handelsmaatschappij (the "Factorij"), Nationale Handelsbank, and Escomptobank—have a major role in providing short-term credit to the agricultural estates and to that portion of industrial and commercial enterprise which is foreign controlled. Branches of two British banks—The Chartered Bank of India, Australia and China and the Hong Kong and Shanghai Banking Corp.—have operated primarily in the financing of foreign trade carried on by Westerners. The two Chinese banks are branches of the Bank of China (domiciled in mainland China) and the Oversea-Chinese Banking Corp., Ltd. (domiciled in Singapore).

There are no branches of American banks in Indonesia, but a substantial number of the banks in New York, Chicago, and the major west coast

[5] The nationalization did not constitute a drastic change inasmuch as the Government had been a major shareholder in the Java Bank since its establishment in 1828. Private shareholders, most of whom were foreign, were given the opportunity to sell their shares to the Government.

[6] It has been indicated that the Bank of Indonesia will gradually dispose of its commercial business, particularly as the full functions of a central bank, standing over other banks of the country, are taken over. The Bank Negara Indonesia has been considered the probable successor to the general banking department of the Bank of Indonesia.

Table 33.—Combined Statement of Bank of Indonesia, Bank Negara Indonesia, Bank Industri Negara, and Seven Foreign Private Banks, 1952–54

[Year-end figures, in millions of rupiah]

Resources: Item	1952	1953	1954	Liabilities: Item	1952	1953	1954
Cash in hand	115	152	208	Private capital and reserves invested in Indonesia	662	984	1,059
Balances of other banks with Bank of Indonesia	515	760	1,176	Domestic creditors	2,255	2,269	3,419
Treasury notes and bills	63	114	153	Nonresident accounts (Rurni)	115	155	122
Investment in securities	30	51	58	Time deposits	85	119	130
Debtors, internal commercial bills, and participations	2,445	2,394	2,826	Sundry credit accounts	1,725	1,239	1,345
Foreign bills and balances	1,557	1,261	980	Subtotal	4,842	4,766	6,075
Foreign exchange certificates on account of foreign exchange bought	65	-------	-------	Foreign Exchange Fund, foreign liabilities	874	1,097	1,738
Real estate	41	199	232	Debt of Bank of Indonesia to other banks in Indonesia	515	759	1,177
Sundry debit accounts	137	165	299	Banknotes in circulation	4,209	5,030	7,270
Subtotal	4,968	5,096	5,932	Economic Cooperation Administration counterpart account	581	614	645
Gold and bullion, balances in convertible foreign exchange, and claim on the Government on account of gold deposited on its behalf with International Monetary Fund (IMF) and International Bank for Reconstruction and Development (IBRD)	892	1,651	1,055	IMF and IBRD accounts	-------	-------	186
Foreign exchange certificates on account of gold bought	208	-------	-------	Total	11,021	12,266	17,091
Foreign Exchange Fund, foreign currency account	223	210	1,461				
Advances of Bank of Indonesia to the Government	4,730	5,309	8,472				
Claim in rupiah on the Government on account of payments made on its behalf to IMF	-------	-------	171				
Total	11,021	12,266	17,091				

Source: Bank of Indonesia, *Report for the Year 1954–1955*

Table 34.—Loans and Advances Granted by Bank of Indonesia, Bank Negara Indonesia, Bank Industri Negara, and Seven Foreign Private Banks, 1953–54

[In millions of rupiah]

Borrower	December 1953 [1]	December 1954 [1]
Semigovernmental institutions	162	321
Private business and individuals:		
Banks and credit institutions	50	60
Insurance companies and savings banks	7	4
Rice-hulling works	7	8
Domestic produce trade	55	103
Exporters	257	359
Importers	516	457
Dock and transport companies	111	127
Sugar plantations	490	444
Other plantations	219	156
Industrial enterprises	239	366
Other enterprises	130	239
Individuals	15	16
Subtotal	2,096	2,339
Total	2,258	2,660

[1] Credits in the form of participations and discounting of bills are omitted from this table.

Source: Bank of Indonesia, *Report for the Year 1954–1955.*

cities in the United States which are concerned with financing foreign trade with Indonesia have correspondent relationship with one or more of the foreign-owned banks.

The resources of the foreign banks—estimated at about 4 billion rupiah as of 1954—are committed largely to short-term trade credits. Little investment capital is attracted to them, time deposits representing only about 3 percent of their liabilities.

Indonesian private banks.—About 20 private banks controlled by Indonesians are important and regularly issue reports. Their assets have grown substantially, increasing from about 187 million rupiah at the end of 1953 to more than 401 million at the end of 1954 (table 35).[7] Trade credits constitute the largest part of their portfolios, as in

[7] Later figures for June 1955 show a considerable decrease in the combined assets of "20 national private banks"—to about 300 million rupiah. However, the data are not strictly comparable.

Table 35.—Statement of Twenty Indonesian Private Banks, 1953–54

[Year-end figures, in thousands of rupiah]

Resources: Item	1953	1954	Liabilities: Item	1953	1954
Cash in hand	14,254	26,480	Capital and reserves	19,200	28,661
Balance with other banks	34,056	72,604	Fixed liabilities	40,087	26,091
Treasury notes and bills	434	340	Domestic creditors and bills payable	93,300	192,725
Investments in securities	3,066	3,979	Time deposits	14,728	74,208
Debtors, domestic bills, and participations	103,248	222,584	Sundry credit accounts	19,335	79,482
Real estate	6,498	11,054	Total	186,650	401,167
Sundry debit accounts	25,094	64,126			
Total	186,650	401,167			

Source: Bank of Indonesia, *Report for the Year 1954–1955.*

the case of the foreign banks, but in 1954 such credits were a slightly lower proportion of the total than in the preceding year (table 36).

Table 36.—Loans Granted by Twenty Indonesian Private Banks, 1953–54

[Year-end figures, in thousands of rupiah]

Sector of activity	1953	1954
Trade	75, 727	114, 966
Industry	15, 156	30, 211
Transportation	3, 936	4, 347
Estate agriculture	3, 163	9, 430
Individuals	2, 823	17, 200
Sundry	1, 246	23, 039
Total	102, 051	199, 203

Source: Bank of Indonesia, *Report for the Year 1954–1955.*

Government-Financed Banks

In an effort to build up national financial institutions, the Indonesian Government has established and financed three banks. One is a commercial bank which primarily assists Indonesians in foreign trade; another provides funds for industrial development; and the third was established to provide small loans, particularly for agriculture. These banks have small resources as compared with those of the foreign commercial banks, but they appear to be increasing in importance.

The State Bank of Indonesia (*Bank Negara Indonesia*).—This bank, established in 1946 and reestablished by Emergency Law No. 2 of 1955, engages in general commercial banking business.[8] Its major emphasis is in assisting Indonesians in the sphere of trade, particularly import-export trade, although it has done considerable credit business in other fields. The bank grants both short-term and long-term credits.

The capital of Bank Negara Indonesia was fixed by law in 1955 at 300 million rupiah. At the end of 1954 it had outstanding loans totaling 610 million rupiah, an increase of 88 million from the preceding year. About 38 percent of the outstanding loans at the end of 1954 had been granted to importers and exporters—a decrease from 50 percent reported at the end of 1953.

State Bank for Industry (*Bank Industri Negara*).—The functions of this bank are to provide financing—including long-term loans—and technical assistance to manufacturing, mining, and agricultural industries.

The bank was established as of April 1951 with a capital of 500 million rupiah, of which half had been paid in as of 1955. In addition, the bank has at its disposal about 190 million rupiah in the form of deposits from the Government and 150 million rupiah resulting from issues of debenture bonds. These latter consisted of two issues of 3-percent 15-year debenture loans—one of two tranches in 1954 amounting to 100 million rupiah and another issue in 1955 totaling 50 million rupiah.[9]

The Bank Industri Negara has extended substantial credits, ranging from 3 to 10 years, to Government and private enterprises. By the end of 1954 these credits amounted to 426 million rupiah, compared with 351 million at the end of 1953. A considerable proportion of the total—about 80 percent—was extended to manufacturing and sugar industries. It is not known to what extent these investments are long term or short term.

The Indonesian People's Bank (*Bank Rakjat Indonesia*).—This bank was established in 1949, and its functions were further defined by law in 1951.[10] It has branches throughout the country to help in carrying out its purpose—the provision of small credits to the lower income group and to those who cannot obtain credit elsewhere. In its early period the bank primarily provided small loans for agricultural purposes, but in recent years it has increasingly concentrated on small business loans, including some in urban centers.

At the end of 1954 this bank had loans outstanding of 480 million rupiah, of which two-thirds were "middle class and current account loans," about one-fifth were agricultural, and the rest were "to people with fixed incomes." By the end of September 1955 outstanding loans had increased to 568 million rupiah.

Other Banks and Financial Institutions

Village banks (*desa* banks).—Village banks were of considerable importance in the rural areas of Java and Sumatra in the prewar period. They were disorganized during the war, but through Government efforts have been considerably revitalized since 1952. These banks are largely financed by funds allocated through the budget of the Central Government. They are primarily concerned with extending small monetary loans to farmers, but also make loans to small-scale traders and craftsmen.[11] As of September 1955 they numbered 4.672 and had outstanding loans of about 63 million rupiah.

Cooperatives.—Of the many activities carried on by cooperatives in Indonesia, the granting of credits to farmer and cottage industry members is the foremost. Credit cooperatives are the most numerous of the various types. Although the capitalization of the cooperative societies is largely from the savings of members, the movement, which is strongly supported by the Gov-

[8] The bank was originally created to be the bank of issue but never functioned in this capacity. In 1952, functions which it held in the field of reconstruction and development were transferred to the Bank Industri Negara.

[9] These debentures were made available only to nonresidents holding blocked rupiah balances, so-called "rural" accounts. Another issue was reported planned for early 1956.

[10] The bank took over some of the functions of an earlier Universal Peoples Credit Bank (Algemene Volkscredietbank), which was liquidated.

[11] In addition to the village (*desa*) banks, rural rice warehouse (*lumbung desa*) banks extend small rice loans in rural areas.

ernment, has received loans from the Bank Negara Indonesia and the Bank Rakjat Indonesia.

The cooperative movement dates from the 1930's but became disorganized during the war. It has expanded greatly in recent years, however, as is indicated by the fact that the total number of cooperatives increased from 5,770 in 1951 to 9,583 by the end of 1954 and membership rose from a little over a million in 1951 to 1,640,000 in 1954. Total deposits during the same period rose from 35 million rupiah to 150 million.

Pawnshops.—Pawnshops, which were established in the prewar period as a Government monopoly to combat usury by providing credit on more reasonable terms, play an important role in the credit field. The number of pawnshops owned and controlled by the Government was 413 as of September 1955. In 1954, they loaned 1.2 billion rupiah on 38 million pledges, and at the end of that year loans outstanding totaled about 380 million rupiah.

Savings banks.—Savings banks, including those of the postal savings bank system (*Bank Tabungan Pos*) and six private banks, play only a minor role in the capital supply. At the end of 1954 credit balances of savings banks totaled 180 million rupiah, of which 159 million rupiah represented deposits with the 755 centers provided in the postal savings system and 21 million rupiah represented deposits with six private savings banks. The small capital built up from savings is loaned primarily to finance economic activities in local areas.

The Credit Foundation (*Jajasan Kredit*).—This institution is a cooperative foundation founded by the Government in late 1950 and reorganized in 1952. Its original purposes were to "promote the national economy" through granting credits to industrial and commercial enterprises, and to act as a guarantor for the financing of industrial activities approved by the Government on behalf of borrowers unable to meet commercial banking requirements for loans.

The financing of such credits up to the middle of 1952 was accomplished by the Credit Foundation in cooperation with the Bank Rakjat Indonesia and the Bank Negara Indonesia from resources made available by the Government; during this same period similar credits were also being granted by various Government departments from their own budgets. As a measure to correct the complicated overlapping system of granting credits by a variety of Government agencies without sufficient coordination, in 1952 the Credit Foundation was reorganized and its functions more sharply defined.

The following objectives were established at that time: (1) All credits, other than normal credits for the benefit of Indonesian industry, would be granted exclusively through the Credit Foundation; (2) separate credits would not be granted by Government departments; (3) the Credit Foundation would be financed by the Bank of Indonesia, which opened in 1952 a credit of 88 million rupiah for this purpose (raised in 1954 to 93 million rupiah); and (4) the Credit Foundation would be decentralized by the establishment of branches called District Credit Institutes (*Jajasan Kredit Daerah*) located in principal centers of the Provinces and in other towns. These branches were empowered to grant credits up to 100,000 rupiah for periods not exceeding 3 years.

From September 1952 through December 1954 the Credit Foundation (and its branches) received 1,980 credit applications for a total amount of about 346 million rupiah. Of these, 909 loans were granted totaling 148 million rupiah. About 40 percent of those granted were for "general economic affairs"; another 40 percent, for sugar and other estate agriculture; 15 percent, for industry; and the remainder, for cooperatives. Although arrears have been reported for a substantial portion of the outstanding loans, as of the end of 1954 the situation had shown considerable improvement.

Insurance companies.[12]—Insurance companies, both life and nonlife, account for only a very small amount of capital formation in Indonesia. Life insurance in force in Indonesia with Dutch companies totaled 115 million rupiah as of December 31, 1952. Insurance company funds, insofar as they are invested within the country, are believed to be invested largely in Government bonds and real estate.

As of June 1955, about 135 insurance companies were operating. Of this total, 20 were locally incorporated and financed, all 20 having been formed since 1950. The Dutch insurance market has always covered an important percentage of Indonesian insurance and most of the foreign insurers are Dutch owned, but United States, British, Australian, and Canadian companies also are represented.

The Government exercises supervision over the insurance industry through the Ministry of Finance and the Ministry of Economic Affairs, and also through its control of a reinsurance company formed in 1954 and whose obligations are guaranteed by the Government. The Government also controls a direct-writing insurance company which sells all branches of insurance except life, operating in competition with privately owned insurance companies. Under Indonesian insurance law, qualifying deposits are required only of life insurance companies.

Workmen's compensation regulations are in effect, but employers are not required to carry insurance. Automobile insurance is the most important class of casualty insurance written. Some personal accident insurance is sold. The companies have for some years followed the practice

[12] Prepared by the Insurance Staff, Office of Intelligence and Services, Bureau of Foreign Commerce.

of excluding riot and civil commotion coverage from all policies.

The stock exchange.—The Djakarta Stock Exchange, which began operation in 1952,[13] makes only a very minor contribution to the mobilization of domestic capital. The exchange lists primarily the securities of Dutch firms but also a few Indonesian securities and Dutch certificates of American securities.

From the end of 1953 until October 1955 only four new issues appeared, three of which were the Bank Industri Negara bond issues. These were available only to nonresidents, most of whom used them as a means of repatriating blocked rupiah balances. The volume of trading on the exchange is small, the chief activity being in 3-percent Republic of Indonesia bonds (1950) and 3-percent 15-year debentures of the Bank Industri Negara.

CURRENCY AND MONEY

Currency and Exchange Rates

The basic unit of currency is the Indonesian rupiah, consisting of 100 sen. Since February 1952, when the currency was last devalued (earlier devaluations occurred in 1946 and 1949), the basic official rate has been 11.40 rupiah to the United States dollar. The rates for other currencies are: Pound sterling, 31.72 rupiah; Netherlands guilder, 3 rupiah; and the Malayan dollar, 3.715 rupiah. Official buying and selling rates have fluctuated about these middle rates.

The system of additional levies and taxes has created multiple effective rates differing from the official rates and varying with changes in these levies and taxes. The current exchange rates for trade transactions range from the official rate to about 57 rupiah to the United States dollar and the rate for most invisible payments is a little over 19 rupiah to the dollar. Details of the current rates are summarized in table 45 (page 93).

There is no legal market rate in Indonesia. However, "curb" rates are regularly quoted in some newspapers in Indonesia and dollar prices of most domestic and imported goods are based on the relationship of the curb rate to the dollar. In 1954 and 1955 the curb rate was several times higher than the official rate, fluctuating between about 25 and 38 rupiah to the dollar.

Indonesia has been a member of the International Monetary Fund since April 1954, but has yet to establish a rupiah par value with the Fund.

[13] Before the war, stock exchanges were maintained in both Djakarta and Surabaja. These were only of local significance, however, since most investors in the area used the Amsterdam exchange. Security prices were dependent on quotations in Amsterdam, and the business of the local exchanges consisted merely of filling orders of local investors which were not given direct to banks or brokers in the Netherlands.

Money Supply

The money supply in Indonesia has been primarily affected by the Government budget and the balance-of-payments position. In the period since 1951 the financing of Government deficits with loans from the central bank has been the chief cause of the rise in money supply and inflationary pressures.

The average increase in the money supply—currency and demand deposits—since 1949 has averaged about 1 billion rupiah annually. From the end of 1951 to the end of 1954 it increased from 5 billion rupiah to 11 billion and in September 1955 stood at 12.6 billion (table 37). The increase was particularly marked in 1954; in that year alone the rise was more than 45 percent.

Table 37.—Money Supply of Indonesia, 1950–55

[In millions of rupiah]

As of end of period	Currency	Deposits	Total
1950	2,582	1,726	4,308
1951	3,328	1,706	5,034
1952	4,349	2,255	6,604
1953	5,218	2,269	7,487
1954	7,542	3,419	10,961
1955 (September)	8,566	4,000	12,566

Sources: Bank of Indonesia, *Report for the Year 1954–1955* and *Bulletin No. 7—Third Quarter 1955.*

The growth in money supply was due mainly to the expanding note circulation of the Bank of Indonesia which, however, up to mid-1954 had been accompanied by a decline in gold and foreign exchange reserves. The ratio of the latter to the Bank of Indonesia's note and deposit liabilities declined from 80 percent at the end of 1952 to 28 percent at the end of 1953 and to 22 percent at the end of 1954. The diminishing reserves caused the Government in mid-1954 to lower temporarily the legal minimum ratio of gold and convertible foreign exchange from 20 percent to 15 percent.

As of the end of 1954 advances of the Bank of Indonesia to the Government were more than 8.3 billion rupiah, reflecting an increase of about 3 billion rupiah during that year. Private credit expansion by other banks, amounting to over 450 million rupiah in 1954, to a limited extent also generated inflationary pressures. Domestic loans and investments of other banks at the end of 1954 amounted to almost 2.3 billion rupiah.

To check inflation resulting from the expanding money supply, the Indonesian Government has instituted various measures and these were partially effective, especially prior to 1954.[14] The system of

[14] Some of the usual measures of monetary control of Western countries were not possible in Indonesia. Owing to its newness as a central bank and the absence of legislation, the Bank of Indonesia was not in a position to control effectively the activities of commercial banks, particularly since the major banks held their reserves abroad. Moreover, conducting open market operations was possible only to a very limited extent, and the varying of rediscount rates was ineffective since commercial banks in Indonesia do not follow the practice of rediscounting their paper with the central bank.

rupiah prepayments required on applications for foreign exchange by importers (introduced in 1952 and raised later) had a disinflationary effect.

This measure was supplemented by the prohibition instituted against transferring profits abroad by any firm indebted to a bank. In addition, the commercial banks agreed not to expand their total credits to importers or provide credit for the financing of advance payments on foreign exchange. The marketing of a bond issue was also claimed to have an anti-inflationary effect.[15]

In 1954, the large budget deficit, together with lagging production and the severe curtailment of imports, resulted in the sharpest rise in the money supply. Later in 1955, however, the Government achieved at least temporary independence from central bank financing, primarily by severely reducing its expenditures. With Government receipts thus brought to a near balance, expansion of the money supply slowed and in the last few months of 1955 it showed little advance.

PRICES AND INTEREST RATES

Prices

Indonesia's inflation due to the expanding money supply and the limited availabilities of consumer goods has resulted in rising prices and living costs. Whereas during most of the period since independence inflation has been "creeping," in 1954 and 1955 the pace was greatly accelerated. In late 1955, however, inflation was strongly checked. Speculative hoarding—especially among Chinese traders—frequently has contributed to the sharp price increases. Price controls have been used during much of the postwar period and for many products, but their effect has been somewhat limited.[16]

Based on the somewhat inadequate indexes available, prices in Indonesia by the end of 1953 had almost doubled from the 1949 level and were then followed by additional increases in 1954 and 1955. In particular, the price level of foods consumed by most of the Indonesian urban population has risen; the index covering prices of 19 foodstuffs on the Djakarta market increased from 100 in 1950 to 199 at the end of 1953, to 210 in the last quarter of 1954, and to 268 in the third quarter of 1955.[17]

Shown below are index numbers of food prices in Djakarta for the period 1950–55:

	Index (1950=100) [1]
1950	100
1951	167
1952	176
1953	187
1954	199
1st quarter	196
2d quarter	195
3d quarter	196
4th quarter	210
1955	
1st quarter	236
2d quarter	254
3d quarter	268

[1] The index which the International Monetary Fund refers to as "cost of living" relates to 19 foodstuffs in Djakarta. The original index compiled by the Indonesian Central Bureau of Statistics, with 1938 as the base year, has been adjusted to a 1950 base.

Source: International Monetary Fund, *International Financial Statistics.*

The overall cost of living for middle-class families in Djakarta, for which data are available only through 1954, has risen perhaps less sharply than the food index affecting all urban dwellers but was considerably influenced by the stringent import restrictions of 1954 and most of 1955. By mid-1955 many imported commodities were priced at several times their 1953 levels in Djakarta markets, a trend which was undoubtedly reinforced by activities of speculators. Late in 1955 following new import regulations, however, prices of imported commodities—particularly textiles—declined. Near the close of 1955 the long-entrenched sellers' markets for imported goods were rapidly changing into buyers' markets.

Although the price increases indicated above are significant, their overall effect on the Indonesian economy is more limited than is sometimes recognized. Many Indonesian farmers, being largely self-sufficient, are isolated from the market economy and the inflation has had much smaller impact in the rural areas[18] than elsewhere.

The urban population and workers on the agricultural estates were strongly affected by the price rise, as were civil servants. Based on the limited available data, the real incomes of these groups declined considerably in the period 1950-55, especially after 1953. Employees of foreign-owned enterprises probably suffered least because they have been best able to obtain repeated wage adjustments.

Interest Rates

Interest rates in Indonesia on loans extended through Government banks and financial agencies and the private banking system are low to moderate. These loans are generally limited to safe borrowers; strict collateral requirements are maintained. On the other hand, interest rates obtained in the unorganized money market are

[15] However, since the bond issue (of Bank Industri Negara) was sold only against the blocked rupiah deposits of foreigners, balances which were not freely disposable, it seems unlikely that the sale of bonds had any effect in increasing the money supply.

[16] In September 1955, price controls were reduced and simplified. In place of the confusing system then in existence, which had evolved over the postwar period, controls are now limited to about 20 categories of goods and services. The categories remaining under price control after the decree of September 1955 are: Rice, rents, petroleum products, medicines, hotels and lodging houses, motion picture theater admissions, electric light bulbs, automobile tires, cigarettes and tobacco, sugar, coal, newsprint, books and other reading matter, port services, coconut oil, margarine, cooking oil and fats, and soap.

[17] Much of the sharp rise in food prices in the second half of 1955 was due to the timelag in the effect from earlier inflationary forces, together with marked increases in the price of short-supply rice after it became known that stocks had been exhausted and imports were still at a low level.

[18] The size of Indonesia and its regional differences mean that there has also been considerable regional variation in the postwar inflationary effect. Available statistical measurements, largely limited to a few of the major cities in Java and Sumatra, probably distort the overall situation.

many times higher than those in the organized sector.

Annual interest rates of the Bank Indonesia are as follows: On discounts, 3 to 6 percent; on loans against sugar, rice, and oils and fats, 4½ percent; on loans against other export products, 5 percent; and on loans against import commodities, 5 percent. Commercial banks quote interest rates of 6 to 9 percent a year. Rates on loans from official and semiofficial agencies average 8 to 10 percent. The Credit Foundation (Jajasan Kredit), established to help business activities which cannot be served by the usual banks, charges a yearly interest rate of 10 percent. Short-term loans by local cooperatives to their members are reported at about 2 percent per month or 18 percent per year.

Small producers and traders in Indonesia rely heavily on the unorganized money market for short-term unsecured credit. Many of them cannot meet the standards demanded by foreign and Indonesian private banks. The credit facilities which have been made available by the Government only partially serve their needs.[19] They turn, therefore, especially for short-term loans, to private moneylenders who charge high interest rates. According to reports as of 1954–55, rates of private lenders for most loans varied from about 2 to 10 percent per month; some loans are made at considerably higher rates.

[19] It is reported that these facilities are often impractical, especially when the need is for immediate credit. For example, obtaining a loan through the Bank Rakjat Indonesia or the Bank Industri Negara is difficult. The collateral requirements are higher than most small-scale Indonesian businessmen can meet, and it takes considerable time to get a loan processed.

International Trade and Payments

Since Indonesia depends on imports for most of its consumer and capital goods, as well as for part of its food supply, a high level of exports is essential to the country's economy.

Exports must cover not only payments for the large import requirements but also the substantial deficit which is normally incurred for such invisible items as the servicing of foreign investments and loans, shipping and insurance, and other current balance-of-payments transactions.

BALANCE-OF-PAYMENTS POSITION

Except for the brief period of the Korean war boom, Indonesia has experienced persistent balance-of-payments difficulties since it achieved independence. In 1953 and early 1954 its international finances deteriorated seriously, but since mid-1954 the situation has improved considerably.

In the early postwar years Indonesia lacked gold and foreign exchange reserves and private foreign credits needed to meet its large deficits on goods and services. During this period the country depended heavily on long-term foreign government loans and grants. Then 1951 and 1952 brought large export receipts. With a decline in this export boom, however, Indonesia found itself after 1952 in a worsening financial condition. Grants had largely ceased, new loans were limited, and except for investments in the petroleum industry the influx of private foreign capital was small.

As a result, Indonesia drew heavily on its gold stock and foreign exchange assets in 1953 and early 1954 to settle its international accounts. Stricter import controls were also imposed to reduce the trade imbalance. Meanwhile, gold and foreign exchange holdings declined, reaching a low point of $212 million in mid-1954, the lowest figure since 1947 (table 38). Subsequently, the effect of the sharp curtailment in imports and higher prices for major export products (coupled with sustained and improved levels of exports) has resulted in considerable improvement in the balance of payments and the exchange holdings.

The Indonesian Government has also attempted to obtain new long-term credits, largely to cover the importation of goods for industrial and economic development. In late 1954 and 1955, the Minister of Finance reported long-term credits for capital imports from France, the Netherlands, and Western Germany. In addition, industrial credits by several private European firms have been reported. Several of the Soviet bloc countries have also made bids to extend credits to Indonesia.

Table 38.—Indonesia's Gold and Foreign Exchange Holdings, 1950–55

[In millions of dollars]

End of period	Bank of Indonesia			Other banks	Total gold and foreign exchange holdings	Exchange fund liabilities
	Gold	Foreign exchange	Total			
1950	209	147	356	115	471	76
1951	280	231	511	81	592	66
1952	235	79	314	77	391	77
1953	145	67	212	64	276	96
1954:						
June	81	76	157	55	212	140
December	81	167	248	51	299	152
1955:						
March	81	192	273	52	325	156
June	81	176	257	48	305	150
September	81	187	268	59	327	146

Source: International Monetary Fund, *International Financial Statistics*, January 1956.

Indonesia's heavy invisible outpayments of the postwar period consist largely of transfers of investment income (primarily profit remittances on behalf of foreign interests), interest payments on the Government's external loans, and transfers by foreign employees and pension payments to former Dutch officials. For the postwar period as a whole, outflows of private long-and short-term capital have exceeded inflows. The balance of payments from 1950 through 1954 is summarized in table 39. Preliminary data for 1955 indicate a more favorable situation than has existed since 1951.

CHARACTER OF TRADE

A large export surplus was characteristic of Indonesia's trade before World War II. Not only was trade disrupted by the war, but many of the production facilities in Indonesia were damaged or destroyed during the Japanese occupation and the postwar hostilities with the Netherlands. With the need to import most of the required manufactured goods as well as basic

Table 39.—Indonesian Balance of Payments, 1950–54

[In millions of dollars]

Item	1950	1951	1952	1953	1954 [1]
Goods and services:					
Exports, f. o. b.[2]	800	1,261	905	669	696
Imports, c. i. f.[2]	−443	−892	−988	−635	−564
Investment income (net)	−24	−41	−27	−55	−70
Transportation and insurance (net)	−32	−13	−23	−26	−17
Nontrade transactions of oil companies (net)	−78	−107	−53	−74 (both rows)	−86 (both rows)
Other (net)	−38	−80	−65		
Total goods and services	185	128	−251	−121	−41
Official and private donations[3]	39	1	7	3	3
Capital movements:					
Private capital	−16	−8	−19	1	−5
Official and bank capital:					
Long-term capital:					
Gold and United States dollar subscriptions to IMF and IBRD	------	------	------	------	−18
Loans received (net)	2	39	76	−7	−4
Other	[4] −10	------	3	1	------
Short-term capital:					
Use of IMF resources	------	------	------	------	15
United States dollar assets, net (increase −)	−79	1	93	33 (both rows)	−9 (both rows)
Other foreign assets, net (increase −)	[4] −83	−67	87		
Monetary gold (increase −)	−30	−82	47	96	58
Total capital movements	−216	−117	287	124	37
Net errors and omissions	−8	−12	−43	−6	1

[1] Preliminary.
[2] The merchandise trade figures in this table do not agree with the figures in some of the tables showing trade included in this report. The International Monetary Fund, which is the source of data for this table, often makes considerable adjustments in original data for coverage, valuation, and timing. The tables showing trade have been compiled direct from Indonesian official trade data.
[3] Primarily official donations.
[4] Excludes transactions arising out of the withdrawal of Indonesia's participation in the Netherlands' subscriptions to the International Monetary Fund and the International Bank for Reconstruction and Development.

Source: International Monetary Fund, *International Financial Statistics*, vol. VIII, Nos. 8 and 11 (August and November 1955).

rice, Indonesia's trade from 1946 through 1949 was characterized by a large deficit each year (table 40).

In 1950, however, the trend was reversed and in 1951 the surplus reached a high of $419 million, reflecting the boom in exports from the heavy demand for Indonesian products—especially rubber—created by the war in Korea. Exports

Table 40.—Foreign Trade of Indonesia, 1936–38 Average and 1946–55

[In millions of dollars]

Year	Exports f. o. b.	Imports c. i. f.	Balance
1936–38 average	436	227	+208
1946	58	106	−48
1947	128	305	−173
1948	394	464	−70
1949	524	580	−66
1950	800	440	+360
1951	1,292	873	+419
1952	934	948	−14
1953	840	765	+75
1954	856	629	+227
1955 [1]	934	593	+341

[1] Preliminary data.

Source: Based on official Indonesian trade data issued by the Central Bureau of Statistics.

reached a level that enabled Indonesia to add to its gold and foreign exchange holdings even though imports were greatly increased.

In 1952 and 1953 declines in the price of rubber and other export products, together with lagging production and increased competition in some fields, caused exports to drop greatly below the 1951 level and led to drastic weakening of the rupiah and stricter import controls. In 1954 and the first part of 1955 the full effect of these stricter controls held imports in check, while the value of exports was only slightly above the 1953 level; later in 1955, however, exports substantially increased.

Composition of Trade

Exports.—A heavy reliance on a relatively few export products has characterized Indonesian postwar trade. Although, in prewar years also, considerable dependence was placed on a number of basic products, fewer commodities have accounted for a larger share of the total exports in the postwar period. Rubber, petroleum and products, tin, and copra made up about 70 percent of 1954 exports (rubber, 31 percent; petroleum and products, 26 percent; tin, 7 percent; and copra, 6 percent) compared with about 62 percent in the immediate prewar years. The difference is due largely to the increased importance of rubber and, to a lesser degree, of petroleum and products, accompanied by a decline in various secondary products.

Other products exported in 1954 in amounts exceeding 100 million rupiah (about $9 million) were coffee, tea, tobacco, palm oil, sugar, and pepper (table 41). The export commodities listed in the table constituted about 90 percent of 1954 exports. Chief among other commodities of lesser importance were tapioca roots, sisal, kapok, and rattan.

Imports.—In both prewar and postwar years Indonesian imports have consisted primarily of consumer goods and "raw and auxiliary materials" to support the domestic consumer goods industries. In the immediate prewar period these two overall categories constituted about 75 percent of total imports and in recent postwar years they constituted about 80 percent. Capital equipment, which makes up the remaining imports, accounted for about 20 percent of the total in recent years compared with 25 percent in prewar years.[1]

In the postwar period about 25 to 30 percent of total purchases from abroad have been textiles and textile raw materials. Rice imports have

[1] These categories are based on the classification of items as used by the Indonesian import statistics, which differentiate between raw auxiliary materials and capital goods as follows: Raw auxiliary materials are intended mainly for domestic consumer goods industries and include cotton yarn and grey piece goods, paper and paper manufactures, metal manufactures, dyestuffs, fertilizer, and cement. Capital goods include iron and steel structurals, electric cables, office machines, motor vehicles, tires and tubes, internal combustion engines, and industrial machinery.

Table 41.—Principal Indonesian Exports, 1953–54

[Volume in units indicated; value in thousands of dollars]

Commodity	1953		1954	
	Quantity	Value	Quantity	Value
Rubber, crude, in sheets, slabs, and balls metric tons	712, 134	273, 716	749, 754	265, 945
Petroleum and petroleum products, total		199, 347		221, 547
Petroleum, crude 1,000 liters	2, 467, 357	13, 904	2, 725, 080	32, 357
Gasoline do	2, 731, 429	78, 822	2, 457, 157	69, 762
Kerosene do	857, 781	20, 452	988, 422	23, 915
Diesel, solar, and similar motor oils 1,000 liters	2, 624, 761	46, 143	2, 417, 569	44, 205
Fuel oils do	2, 782, 624	34, 654	2, 885, 719	40, 943
Paraffin metric tons	41, 178	5, 372	76, 486	10, 365
Tin ore, slag, and ash do	47, 449	80, 588	48, 254	59, 457
Coconut products, total		65, 106		57, 648
Copra metric tons	311, 029	57, 773	296, 855	50, 946
Copra oilcakes do	114, 379	7, 333	141, 241	6, 702
Coffee do	33, 575	30, 871	38, 232	39, 943
Tea do	33, 003	23, 734	44, 973	39, 800
Tobacco, leaf do	14, 577	31, 386	19, 494	32, 118
Palm oil and palm kernels, total		34, 678		30, 443
Palm oil metric tons	135, 962	28, 559	140, 106	25, 539
Palm kernels do	43, 403	6, 119	42, 595	4, 904
Sugar, refined do	97, 369	10, 216	212, 829	22, 372
Pepper do	7, 605	16, 202	12, 927	12, 822
Total, these exports		765, 844		782, 095
All exports from Indonesia		840, 245		856, 064

Source: Based on official Indonesian trade data issued by the Central Bureau of Statistics.

ranked second, but are declining. Chemicals (including fertilizers and pharmaceutical products), paper, cement and glass, and metal products have been important in the categories of consumer goods and raw and auxiliary materials. Crude oil is imported for refining and reexport.

Some shifting away from imports of consumer goods toward increased imports of raw and auxiliary materials is discernible. Whereas consumer goods accounted for 43 percent of the total import value in 1938 and raw and auxiliary materials accounted for 32 percent, in 1954 their relative position was reversed, raw and auxiliary materials accounting for 42 percent of the total and consumer goods, 38 percent.

Table 42 gives the major imports for 1953 and 1954 according to general commodity groups; the listed commodities constitute about 90 percent of all Indonesian imports.

Table 42.—Principal Indonesian Imports, 1953–54

[In thousands of dollars]

Item	1953	1954
Textiles and textile products, total	225, 574	182, 915
Cotton fabrics	136, 369	107, 614
Yarns	29, 274	30, 568
Synthetic fabrics	18, 387	9, 321
Clothing and footwear	10, 170	7, 177
Gunny sacks	7, 094	5, 951
Cotton, raw and waste	4, 638	4, 845
Other textile fibers, yarns, fabrics, and made-up goods	19, 642	17, 439
Machinery and equipment, total	135, 411	107, 817
Cycles, not motorized, and parts	17, 844	14, 197
Electrical machinery and equipment, including locomotives	23, 325	13, 106
Railway passenger cars	1, 551	9, 205
Internal combustion motors	14, 178	8, 120
Other nonelectrical machinery and parts	39, 896	38, 144
Motorbuses and trucks	9, 256	5, 990
Other road motor vehicles and parts	14, 877	11, 174
Communications equipment	7, 076	5, 338
Seagoing motorships	7, 408	2, 543
Food products, beverages, and tobacco, total	133, 134	93, 479
Rice	80, 372	48, 947
Wheat flour	18, 779	12, 302
Tobacco	10, 522	9, 034
Fish and fish preparations	9, 413	8, 310
Cloves and clove stems	6, 252	8, 381
Dairy products	7, 796	6, 605
Base metals and manufactures, total	73, 815	66, 376
Iron and steel sheets and plates and hoop iron	21, 907	20, 873
Iron and steel bars, tubes, and pipes	15, 998	12, 410
Nonferrous base metals and alloys	4, 196	8, 552
Other base metals, ores, and manufactures	31, 714	24, 541
Petroleum and related products, total	54, 074	46, 893
Petroleum, crude	42, 954	38, 200
Other fuels, lubricants, and related products	11, 120	8, 693
Chemicals and allied products, total	43, 642	38, 967
Chemical elements and compounds	9, 608	8, 590
Fertilizers	7, 456	6, 991
Pharmaceutical products	5, 447	5, 803
Coal-tar dyes	4, 583	5, 312
Other chemical products and preparations	16, 548	12, 271
Paper and paper products, total	18, 974	16, 879
Nonmetallic minerals and products, total	11, 179	13, 682
Cement	6, 067	8, 059
Glass and glassware	5, 112	5, 623
Total, these imports	695, 803	567, 008
All imports into Indonesia	766, 610	629, 099

Source: Based on official Indonesian trade data issued by the Central Bureau of Statistics.

Trading Partners

Most of Indonesia's trade (about 60 percent in 1954) is with the United States, the Netherlands, Malaya (including Singapore), and Japan. Western Germany and the United Kingdom are the other leading European trading partners and Hong Kong, Australia, Burma, and Thailand are of importance (table 43).

The Netherlands and the United States are the leading markets for Indonesia's exports, receiving goods both direct and by transshipment through Malaya. The major exports to the Netherlands are copra, palm oil and palm kernels, tea, tobacco, and tin ore. The United States purchases mainly rubber, tin ore, and crude petroleum, but also gets tea, tobacco, pepper, hard fibers, and kapok. Japan is a market primarily for rubber; Germany, for rubber, copra, and palm oil; the United Kingdom, for rubber and tea; and Australia, for petroleum products.

The United States and Japan are Indonesia's leading suppliers. In 1954 Japan ranked first but in other recent years and through the first 10 months of 1955 the United States led. The Netherlands is third-ranking supplier. Germany and

Table 43.—Indonesian Trade With Principal Countries, 1953–54

[In thousands of dollars]

Country [1] of origin or destination	Total trade			Exports			Imports		
	Value		Percent of total in 1954	Value		Percent of total in 1954	Value		Percent of total in 1954
	1953	1954		1953	1954		1953	1954	
United States	311, 287	234, 277	15. 8	172, 197	143, 478	16. 8	139, 090	90, 779	14. 4
Netherlands	283, 510	230, 951	15. 6	193, 718	165, 132	19. 3	89, 792	65, 819	10. 5
Malaya [2]	216, 583	224, 507	15. 1	205, 259	219, 195	25. 6	11, 324	6, 012	1. 0
Japan	165, 011	186, 858	12. 6	37, 876	50, 100	5. 9	127, 135	136, 758	21. 7
Germany	90, 333	82, 651	5. 6	39, 965	39, 582	4. 6	50, 368	43, 069	6. 8
Hong Kong	67, 207	77, 704	5. 2	12, 324	39, 970	4. 7	54, 883	37, 734	6. 0
United Kingdom [3]	71, 309	74, 060	4. 9	17, 410	39, 937	4. 7	53, 899	34, 123	5. 4
Australia	37, 213	43, 171	2. 9	19, 480	30, 253	3. 5	17, 733	12, 918	2. 1
Burma	44, 561	31, 107	2. 1	140	629	.07	44, 421	30, 478	4. 8
Iraq	12, 272	30, 951	2. 1	1, 776	865	. 1	10, 496	30, 086	4. 8
Thailand (Siam)	23, 898	24, 328	1. 6	7, 339	8, 445	1. 0	16, 559	15, 883	2. 5
Total for countries listed	1, 323, 184	1, 240, 565	83. 5	707, 484	737, 586	82. 2	615, 700	503, 659	80. 1
All countries	1, 605, 014	1, 485, 163	100. 0	840, 245	856, 064	100. 0	764, 769	629, 099	100. 0

[1] Countries listed in this table are those which had a total trade (exports plus imports) valued at $20 million or more in 1954. Countries not listed here which had trade in 1953 of $20 million or more are (with the 1953 value of the total trade in thousands of dollars): Sarawak and Brunei, 29,925; Belgium-Luxembourg, 28,346; and India, 24,712.

[2] Includes Singapore and the Federation of Malaya.

[3] Includes Ireland.

Source: Based on official Indonesian trade data issued by the Central Bureau of Statistics.

Belgium have been other European suppliers of importance in recent years, and Burma, Hong Kong, Thailand, Sarawak, India, and Australia have been leading Far Eastern suppliers. Iraq has also ranked as a supplier. Manufactured goods have predominated in the imports from most of these countries except Burma and Thailand, from which rice has been the major import.

Japan ranked first in 1954 as Indonesia's source of yarns and textiles (except gunny sacks, which come largely from India), iron and steel sheets and plates, and bicycles and parts. The United States was the leading supplier of tobacco, paper and paper products, nonelectrical machinery, and motor vehicles, and the second country of origin for wheat flour, iron and steel sheets and plates, and electrical machinery and equipment. The Netherlands held first place as supplier of chemicals, electrical machinery and equipment, and some types of transport equipment, and second place as the source of nonelectrical machinery and parts.

Terms of Trade

The most favorable level in terms of trade in the postwar period was in 1950 and 1951, when prices for Indonesian exports were high as a result of the demand created by hostilities in Korea. Export prices rose about 110 percent between 1949 and mid-1952, while import prices increased only 60 percent in this period. After 1951, however, the volatile prices of Indonesian exports dropped faster than the cost of imports, resulting in a decline in the terms of trade.

Using 1950 as base year (100), the terms of trade reached a low of 63 in February 1954. A rise then occurred, and in February 1955 the terms of trade stood at 98 and in August 1955 at 94 (table 44).

Table 44.—Terms of Trade for Indonesia, 1948–55

[1950=100]

Year	Price index numbers		Terms of trade (monthly average)
	Exports (f. o. b.)	Imports (c. i. f.)	
1948	68	76	90
1949	68	83	89
1950	100	100	100
1951	144	138	104
1952	101	131	77
1953	90	119	76
1954	86	108	80
1955 (August) [1]	102	109	94

[1] The price index numbers for August 1955 have been adjusted to a basis comparable with that of prior years. This adjustment does not alter the calculated terms of trade.

Source: Annual reports and bulletins of the Bank of Indonesia.

Much of this recent improvement resulted from higher rubber prices; these rose in 1954 and held firm in 1955. The average export proceeds of petroleum products and tin also increased in 1954 and 1955 but prices of some Indonesian export products—coffee, tea, and copra—declined. In the most recent postwar years the prices of imported consumption and capital goods registered declines while prices of most other imported raw materials remained steady.

Trade Outlook

The overall level of future foreign trade depends primarily on Indonesia's success in develop-

ing and expanding the production of exports and the successful marketing of these products abroad. Difficult problems are faced, however, in achieving sizable increases in the export level. The future for rubber, the leading foreign exchange earner, is clouded by several factors.

The outlook for an increase in the demand for rubber is good; it has been estimated that the total world consumption (natural and synthetic) will increase by about 16 percent in the years 1955–59. The technological advantages of natural rubber for some uses and its strong competitive position with synthetic for other uses under favorable price conditions provide an opportunity for increased sales of natural.

However, the limited planting of rubber trees in the past 7 years means that a relatively small increase in the world's supply of natural rubber is possible in the short run, whereas synthetic production can be increased more rapidly.[2] Indonesia's prospects for gaining a larger share of the world's natural rubber market are less promising than are those of some other producing and exporting areas. Indonesia has lagged behind Malaya, for example, in replanting older rubber trees and in introducing new strains and methods.[3]

Replanting of the present producing areas and the planting of additional ones have become increasingly necessary and important if Indonesia is to keep its share of the total world rubber market. Since large-scale replanting could be expected to reduce total output for some years (until the new trees reach the rubber-bearing stage), even under the most favorable conditions it appears unlikely that Indonesian production can be significantly increased before the middle 1960's. Moreover, the production and export of smallholder rubber, which now exceeds rubber from estates, have resulted in some lowering of quality in the rubber shipped from Indonesia. The maintenance of acceptable quality standards for smallholder rubber is a requisite if Indonesia is to increase its export in the face of competition with other producing areas and with synthetic.

The outlook for increased petroleum exports appears somewhat brighter. As a consequence of new arrangements between the Indonesian Government and the oil companies negotiated in 1954, and substantial additional investments in producing facilities, there have been recent increases in production and activity and these are expected to continue. Crude oil production in 1954, for example, was 148 percent of the 1938 level. The export volume of crude oil in 1954 was 110 percent of that in 1953 and export proceeds from petroleum and its products increased by a larger percentage. For the first half of 1955 Indonesia's total production of crude oil was 113 percent of the amount in the first half of 1954, and the volume of exports of petroleum and products for the first 10 months of 1955 was about equal to that of the corresponding period in 1954.

The future prospects for Indonesian tin show indications of continuing the relatively good record of the past. While mine production of tin in other countries declined slightly between the prewar period 1935–39 (average) and 1954, Indonesian production increased by nearly 24 percent. Tin exports rose in 1954 to 104 percent of 1953 tonnage, but in the first 10 months of 1955 they were slightly lower than in the corresponding period of 1954. Favorable prospects for tin are bolstered by the fact that Indonesia is well situated with respect to reserves of tin (having perhaps 20 percent of world reserves); moreover, Indonesian tin concentrates, of high grade and free from impurities, can be used advantageously to improve the concentrates obtained from other areas.[4]

The outlook for copra as a source of export earnings is not clear, but prospects do not appear favorable. The volume of exports from Indonesia in 1954 was some 45 percent less than the average volume of 1938 and 1951, and a steady decline has been recorded since 1951. Indonesian copra is at a disadvantage in the United States market, because of preference given to Philippine copra under an oil-processing tax. Moreover, the development of substitutes for soap and the production of surplus oils and fats in other parts of the world are adverse factors.

Indonesia has long produced numerous secondary export products, many of which have been of greater importance in the past than in recent years. Diversification commoditywise, including new products as well as those which have declined since the war, can offer opportunities for the expansion of exports. Increased attention will have to be given to price competition, uniformity and quality of products, and regularity in supplying products.

Indonesian imports will continue to be predominantly manufactured goods (including some industrial raw materials) though their composition can be expected to show some changes. If the country's industrialization is stepped up, imports of capital goods will constitute a larger part of the total imports, but as manufactures are produced in increased quantities in Indonesia—for

[2] It is expected that the world's consumption of synthetic rubber in the next few years will increase more rapidly than that of natural and the proportion of synthetic used will be higher than at present. The increase in total world demand for rubber for the period 1955–59 is estimated at 16 percent but the expected increase in production of natural rubber in this period is only 3 percent. The increase in synthetic production thus necessary to satisfy the expected demand will be about 40 percent. Whereas, in 1955, the amount of synthetic used was less than half the amount of natural, the consumption of synthetic in 1959 is expected to be about two-thirds that of natural. (*Chemical and Rubber Industry Report*, vol. 2, No. 5, May 1955, page 24. Business and Defense Services Administration, U. S. Department of Commerce.) These estimates exclude consumption by Soviet bloc countries of rubber produced in those countries, but include estimated imports of natural rubber into the bloc countries.

[3] It is estimated that 34 percent of Indonesia's rubber estate acreage was over 35 years old in 1955, compared with 25 percent for Malaya, and that Malaya had 21 percent of its rubber estate acreage in rubber trees under 15 years old in 1953, compared with 9 percent for Indonesia.

[4] See also a discussion of the outlook for tin in chapter VI.

example, cement, glass, and paper—imports of these items will be reduced.

The trading partners dominant in Indonesia's trade in recent years—the United States, the Netherlands, and Japan—are expected to continue to lead in the near future.[5] Should Indonesia and Japan reach a reparations settlement similar to the settlement reached with Burma and that under discussion with the Philippines, Japan's trade position with Indonesia undoubtedly will be further strengthened.

TRADE AND EXCHANGE CONTROLS

Indonesia has maintained some degree of control over trade and exchange transactions since 1940, when the Foreign Exchange Law and Ordinance became effective. In recent years the Government has resorted to numerous regulatory expedients, and changes in this field have been frequent.

The basic aim of the restrictive system since its inception has been to obtain full and appropriate use of the country's limited foreign exchange resources. It is primarily designed to serve balance-of-payments purposes in a nondiscriminatory manner: On the one hand, restricting imports and the transfer of foreign exchange payments for certain invisible items; on the other hand, increasing exports. Other objectives, such as increasing Government revenue, assisting economic development, and affording protection to domestic industries, have played important but relatively subordinate roles.

Essential features of the system have included restrictions exercised through licensing requirements attached to imports, exports, and exchange payments. Foreign exchange proceeds from exports have, in most instances, been required to be surrendered to official exchange authorities. Effective multiple exchange rates have been in force since 1947.

On the export side, the multiple rates have been established through granting various "inducement" schemes, special combined export-import arrangements, and the payment of export premiums. On the import side, varying rates have been established primarily through the classification of commodities into priority categories subject to the payment of additional import surcharges; these surcharges have been changed several times within the range of zero to 400 percent of the value of the imported goods.

Designed primarily to restrict the demand for imports of semiluxury and luxury goods and of goods which could be manufactured domestically, the surcharges have also provided increased Government revenue and have helped to decrease the money in circulation. An additional surcharge on most foreign nontrade payments not of a personal nature has also been in effect.

Another restriction affecting import transactions which has been in effect for several years is the requirement of advance deposits; the rates of these rupiah prepayments have changed several times, ranging from 40 to 100 percent of the value of the merchandise to be imported. Not only have the advance deposits served the purpose of restricting import applications, but they have also temporarily helped to improve the cash position of the Government, decrease money in circulation, and indirectly encourage domestic industry.

A major revision of Indonesia's import-export regulations was effected by a series of changes announced on September 1, 1955, and shortly thereafter. This revision was considered necessary to simplify the system of controls which in the past several years had become so confusing and complex as to make its administration exceedingly difficult. Among the various changes at this time was the abolition of previously existing regulations which had directly or indirectly tied together many import and export transactions, that is, those of a compensatory, barter, and parallel nature and certain other special trade transactions.

Import Regulations

Under the September 1955 revisions, imports remain under strict control and require approval in the form of prior import-exchange licenses. Such licenses are granted only to individuals and business establishments that have obtained official recognition as importers from the Ministry of Economic Affairs. Advance deposits (in rupiah equivalent) of 75 percent ad valorem of raw materials and capital goods for industry, and of 100 percent ad valorem of all other imports, are necessary before licenses are granted.

A system of multiple rates for various groups of imports is retained. (The current effective rates applicable to imports and exports are given in table 45). Import goods are divided into four categories, with applicable import surcharges (Tambahan Pembajaran Impor, or TPI's) as follows:

Category and type of export	*Rate of surcharge (percent ad valorem)*
I. Essential goods	50
II. Semiessential goods	100
III. Luxury goods	200
IV. Extreme luxury goods	400

Unless a special permit is issued by the Monetary Board, goods not included in the above categories cannot be imported. The following partial

[5] Malaya (Singapore and the Federation of Malaya) have been omitted here as major trading partners because they are not final consuming markets or producing areas, but serve primarily in the transshipment and processing of goods moving to and from Indonesia. This trade will undoubtedly remain large, although Indonesia may continue its recent efforts to trade direct with other countries rather than through Malaya.

Table 45.—Indonesian Exchange Rates, as of January 1956

[Rupiah per U. S. dollar]

Selling rates	Buying rates
11.475 (official rate): Category I (essential) imports not subject to TPI [1] (rice, weaving yarns, newsprint, etc.); invisible payments arising from foreign trade; invisible payments and capital transfers exempted from 66⅔-percent TPT charge.	11.355 (official rate): Major exports (rubber, petroleum and products, tin, copra, coffee, palm oil and kernels, tobacco, and sugar). All invisibles and capital.
17.213 (official rate plus 50-percent surcharge): Other category I imports.	11.928 (official rate plus 5-percent premium): Exports of pepper.
19.125 (official rate plus 66⅔-percent charge): Invisible payments and capital transfers not exempted from TPT levy.	12.491 (official rate plus 10-percent premium): Most other exports.
22.950 (official rate plus 100-percent surcharge): Category II (semiessential) imports.	
34.425 (official rate plus 200-percent surcharge): Category III (luxury) imports.	
57.375 (official rate plus 400-percent surcharge): Category IV (extreme luxury) imports.	

[1] Tambahan Pembajaran Impor (import surcharge).

list provides a general indication of the types of commodities in these categories.[6]

Category I: Rice, weaving yarns, milk for infants, aviation fuel, newsprint (the preceding all free of surcharge), cheaper quality textiles, ferrous and nonferrous crude and semimanufactured metals, cement, gunny bags, fertilizers, flour, paper, books, various medical, pharmaceutical, and technical articles, and chemical products.

Category II: Canned milk, cheese, nails, paints, washing machines, kitchen ranges, bicycles and smaller motorcycles, cheaper type watches, typewriters, and office machines.

Category III: Cakes and biscuits, vegetables and fruits in other than fresh form, jams and jellies, spices, fish and meat (other than salted or dried), cigarettes and cigars, cameras and film, kitchen cutlery, and fountain pens.

Category IV: Radios and phonographs, automobiles and accessories, larger motorcycles, leather footwear, and more expensive watches.

In addition to clearly defined decrees establishing import procedures, certain privileges and preferences are granted to national firms under administrative decisions and directives of various supervisory bodies.

Export Regulations

Under the trade regulation revisions of the last half of 1955, certain controls over exports are maintained to facilitate exchange controls, to strengthen the position of exporters, and to insure adequate supplies of goods in the domestic market. All exports require licenses. With the exception of oil companies to which special arrangements apply, exporters are required to surrender all foreign exchange proceeds.

Exports may not be invoiced in rupiah, but must be invoiced in a foreign currency acceptable to the Central Bureau of Exports. No general limitations are in effect as to the destination of exports; however, in order to coordinate this phase with other aspects of national policy, the export of certain commodities may be periodically prohibited. Likewise, in certain cases export licenses may be withheld if the destination concerned is considered not to be in the interest of Indonesia or not in conformity with existing trade agreements.

In conjunction with a recent revision of the export duty system, an incentive scheme of export premiums was reintroduced under which the Government makes certain payments to exporters of weak (i. e., slow-moving) products. These payments are in rupiah and based on percentages of the f. o. b. prices. Most commodities eligible for this premium assistance receive a 10-percent payment.

Exchange Restrictions

In principle residents of Indonesia are not allowed to possess foreign exchange.[7] As previously indicated, foreign exchange from the sale of goods abroad must be deposited to the Government's funds out of which, in turn, foreign exchange required for payment abroad is made available. Because invisible outpayments constitute a substantial drain on foreign exchange reserves, Indonesia tightly limits such payments through stringent exchange controls and a heavy tax on most remittances.

Profit transfers.—Foreign firms operating in Indonesia are usually able to transfer only a part of their gross profits earned in any accounting period and are subject to a levy on most remittances. For remittances covering transfers of profits for the book year 1952, the Indonesian Government generally allowed only 40 percent of the gross profits before taxes; new regulations (given below) have been issued for 1953 and 1954, but not for 1955.

In March 1954 an exchange surcharge of 66⅔ percent (often referred to as a TPT levy) was imposed on transfers abroad of foreign exchange for payments for invisible items, including profit remittances. Only a few types of transfers are exempt from this levy. Specifically exempt are transfers on income from foreign investments made in the industrial field after 1953, personal transfers of foreign employees, and payments related to commodity transactions (freight, insurance, export commissions, and bank charges).

[6] The classification of specific commodities can be obtained from the Far Eastern Division, Bureau of Foreign Commerce, U. S. Department of Commerce.

[7] Foreign nationals resident in Indonesia may, however, retain in the currency of their own country any income that arises from other than foreign trade.

In June 1955 new regulations were issued which apply to transfers of profits for the years 1953 and 1954. For a book year beginning on any date in 1953, profits may be transferred after deduction of taxes paid on the assessable profits and after payment of the transfer surcharge. For profits made in the fiscal year beginning any date in 1954, transfer licenses are granted for only 60 percent of the net profit, out of which is paid the transfer surcharge.

Applicants for exchange licenses must be able to prove that 40 percent of the 1954 net profit—gross profits less company tax—has been deposited with the Bank of Indonesia in a "profit reserve account." Transfers may then be granted up to the amount of the remaining balance after deduction of the transfer surcharge. Excepted from the profit reserve are investments made in or after 1954. No restriction is made on dividend remittances for the fiscal year 1953, but remittances for 1954 are limited to 30 percent of the paid-up capital.

Private remittances.—Transfers of exchange by foreign-staff employees in Indonesia are limited to about 20 percent of their salaries. The regulations covering these remittances, which were put into effect by the Foreign Exchange Institute on January 1, 1954, also established an administrative procedure which places the responsibility for distributing the foreign exchange remittances of a company's employees in the hands of the employing firm.

Most types of personal transfers—for example, savings, maintenance, and educational expenses and insurance premiums—are handled through the employer, who receives a lump-sum allocation on foreign exchange based on 20 percent of the gross salary of his foreign staff.[8]

Capital outpayments.—Capital repatriation has been largely suspended since 1954. Foreign nationals residing in Indonesia do not normally receive approval for capital payments abroad. Each case of repatriation of capital on behalf of nonresidents is subject to individual consideration by the Indonesian authorities.

Other provisions.—The Foreign Exchange Institute has issued various regulations covering other invisible payments, such as income of rents and dividends and insurance. It also has discretion to grant licenses for the remittances of film rentals, advertising payments, legacies, and charitable remittances on individual application.

Administration of Controls

The administration of the exchange controls is done by the Foreign Exchange Institute (Lembaga Alat-Alat Pembajaran Luar Negeri, or LAAPLN) under the direction of the Bank of Indonesia. For trade transactions, combined import and exchange licenses are issued by the Foreign Exchange and Trade Bureau (Biro Devisen Perdagangan, or BDP).[9] Export licenses are issued by the Central Bureau of Exports (Kantor Urusan Expor).

TARIFF STRUCTURE

The major purpose of the Indonesian tariff system is to raise revenues. The tariff has no preferential or discriminatory features. In addition to import duties Indonesia levies duties on exports. Import duties and charges are assessed on the c. i. f. value, whereas export duties and charges are assessed on the f. o. b. value.

Import Duties

The import tariff rates are generally the same basic rates in effect prior to World War II, but an additional 50-percent surtax has been added. The basic rates are divided into three main categories: (1) Raw materials and semimanufactured goods, 6 percent ad valorem; (2) ordinary consumer goods, 12 percent ad valorem; and (3) luxury goods, 20 percent ad valorem. The 50-percent surcharge, however, raises these duties to 9, 18, and 30 percent, respectively. In addition, duties have been fixed for a few items at other ad valorem rates and for about 20 items specific duties are charged.

In addition to import duties, since October 1951 sales taxes have been imposed on all imports as well as on goods domestically produced and sold. These taxes amount to 5 percent for most goods and 10 percent for luxury goods. In assessing these taxes on imports, which are sometimes referred to as "special import taxes" and are collected by the customs, calculations are made on the basis of the value of the goods plus duties (including the surcharge).

Exemption from import duties is granted on certain categories of commodities (mostly raw materials) needed for agriculture, transportation and communications, public health, and selected industries. Exemption from duties is possible, for example, for such imports as chemical dyestuffs for use in factories, minerals and crude oils for certain industries, materials and equipment for the manufacture of export products, and some machine tools. The importation of certain raw materials for new industrial enterprises may be exempted from duties for a period of up to 2 years.

[8] Firms must divide their allocated foreign exchange among their foreign-staff employees within the limits of 17½ and 22½ percent of the employees' gross salary. Within these limits the employer is charged with making a just distribution of the foreign exchange among his employees and providing for its transfer.

[9] Prior to September 1955, when it was abolished, the Central Import Office (KPUI) was the agency responsible for implementing import regulations. Thought is being given also to transferring control of export transactions to the new BDP.

Export Duties

During much of the postwar period Indonesia has imposed a general export duty of 8 percent on most products. The Minister of Finance, however, has had the authority to exempt particular products. In addition to these general export duties, special and additional duties have been levied on most of the important export items and the rates of these duties have changed frequently. Statistical dues and administrative charges, together amounting to 1 percent, have also been assessed.

In October 1955, following a comprehensive revision of the import system, the export duty system was considerably revised as part of an effort to boost the country's export trade. All extra export duties and most general export duties were abolished, as well as the statistical and administrative charges in connection with exportation. All duties were removed on pepper, tobacco, sugar, palm oil, and palm kernels. Export products remaining subject to a general export duty are copra and coffee, on which a 3-percent ad valorem duty is imposed; petroleum and petroleum products, 4 percent; tin, 8 percent plus 3.50 rupiah per 100 kilograms; and rubber, 65.4 rupiah per 100 kilograms.[10] In addition, for these products 1 percent is imposed as a statistical and administrative charge.

TRADE AND PAYMENTS ARRANGEMENTS

A significant part of Indonesia's foreign trade is covered by various trade and payments agreements. Upon assumption of sovereignty, Indonesia took over the rights and obligations of Dutch trade and payments agreements with third countries in which Indonesia had been included jointly or as a member of the guilder area. Since that time, Indonesia has made efforts to negotiate bilateral agreements to replace these obligations and has also concluded numerous agreements with other countries.

As of 1955, trade and payments agreements were in effect with the Netherlands, Japan, Czechoslovakia, Hungary, Poland, Rumania, Yugoslavia, and communist China. Other agreements—with Austria, Denmark, France, Western Germany, Greece, Italy, Norway, Portugal, Sweden, and Switzerland—provided for payments to be settled under arrangements with the Netherlands through the European Payments Union. In addition, trade agreements were in effect with Australia, India, Pakistan, Finland, and Egypt. A payments arrangement, limited in scope, had been concluded on a private level with Eastern Germany, and a similar arrangement was made with the Bank of Mexico for the financing of a barter transaction. An informal "compensation arrangement" with Hong Kong has been in effect during part of the past few years.

In the latter part of 1955 it appeared that some of the agreements which had expired would not be renewed and that there was less interest in new agreements. A number of statements by Indonesian officials indicated that some of the agreements have not resulted in the expected increase in trade and may actually have operated to decrease Indonesia's foreign exchange earnings.

Indonesia's payments agreement with the Netherlands, concluded in 1950, has some features of general interest. Under it the Netherlands maintains an account in Netherlands guilders in the name of the Bank of Indonesia (the so-called A account). Commercial and financial transactions between Indonesia and the Netherlands and payments between Indonesia and certain third countries (countries of the European Payments Union) are made through this account.

In effect, Indonesia accepts guilders for its usual surplus with all EPU members other than the Netherlands and applies the guilders to its normal deficit with the Netherlands. Any remaining deficit is then settled in other types of foreign exchange acceptable to both parties. In practice, this has meant that Indonesia has usually settled its net deficits with the Netherlands in dollars. As of the end of 1955 negotiations between Indonesia and the Netherlands were under way concerning future commercial and financial arrangements.[11]

In addition to earnings through direct exports to the United States, Indonesia acquires considerable amounts of dollar exchange under special arrangements with the Netherlands, Singapore, and the Federation of Malaya. These areas remit dollars and other currencies to Indonesia earned by the reexport of goods which originate in Indonesia.

THE GOVERNMENT AND TRADE

Although trade is generally in private hands, the Indonesian Government engages in import and export activities to a limited extent. Throughout the postwar period the Government's policy has emphasized the channeling of trade in the hands of Indonesian firms and numerous measures have been taken to achieve this policy.

[10] The rate on rubber as established in October 1955 was 3 rupiah per 100 kilograms, but in late December it was sharply increased to 65.4 rupiah.

[11] In early 1956, overall discussions between Indonesia and the Netherlands—which covered various relationships between the two countries—broke off and Indonesia abrogated the Netherlands-Indonesian Union which had been negotiated at the time Indonesia was granted independence. Some question remains as to whether Indonesia will leave the financial and economic agreement intact or will seek new economic arrangements.

Government Trading

The purchase and sale of most copra are in the hands of the Copra Foundation (Jajasan Kopra). The Government's Food Supply Board (Jajasan Urusan Bahan Makanan), which regulates the distribution of rice, buys and holds stocks of this important food commodity as reserves against emergencies.

Many of the supplies required for Government projects are imported by the Government. To facilitate its purchases the Government maintains purchasing offices abroad, including the Indonesian Supply Mission, 5 East 68th Street, New York 21, N. Y. Temporarily, the Government has at times taken over the importation of certain commodities; for example, in late 1954 when there was considerable speculation in flour and textiles the Government took over control of the importation and distribution of these commodities.

Indonesianization of Trade

A major Government policy followed since Indonesia became sovereign has been the encouragement of Indonesians in trading activities and the protection of Indonesian trading companies.

To achieve these ends, certain privileges have been granted to Indonesians; these have varied from time to time, depending on the emphasis given "Indonesianization" by the particular cabinet in power.[12] The pace was stepped up in 1953 and 1954. During this period the issuance of import licenses was virtually limited to national firms. This action forced foreign firms wishing to stay in business either to organize Indonesian firms as fronts or to buy licenses from Indonesian concerns; since there were few experienced Indonesian trading firms, these latter practices became generally accepted.

Since September 1955, when new import procedures were established, foreign importers have again been permitted to receive licenses in their own names, provided they pay 5 million rupiah for the purpose of financing present and future imports.[13] Certain kinds of import goods—mostly related to native-type industries—can be imported only by Indonesian firms. Moreover, Government orders continue to be channeled almost exclusively through Indonesian firms, which also have preference in trade with certain Asian countries. Commercial groups in Indonesia are pressing for continued and increased protection for national firms in the trade field.

[12] Indonesianization has not been confined to trading activities, but it has perhaps been pushed hardest in this and related fields. Although primarily aimed at the large Dutch firms, which have for many years handled most of the trade, and at the Chinese who are active in trading activities, it has affected all nonnational firms.

[13] Some industrial firms which import raw materials for their own consumption are, however, exempt from this deposit.

Labor and Industrial Relations

From the standpoint of private foreign investment the Indonesian labor situation is of major concern. Lack of trained labor, low productivity, increasing demands for labor unions, and difficulty in obtaining entry permits for needed foreign personnel are problems facing entrepreneurs. Businessmen find, however, a large supply of labor, and employees are generally anxious for training. Moreover, some labor leaders are becoming increasingly aware of the responsibility of laborers, and collective bargaining procedures are improving.

LABOR SUPPLY AND PRODUCTIVITY

The Indonesian labor force, estimated as of 1955 at 32 million to 36 million persons, or about 40 to 45 percent of the population, is the largest of any country in Southeast Asia. As of 1951, of an estimated labor force of about 26 million, some 16 million (or 35 percent) were reported engaged in agriculture, forestry, fishing, and cottage industries. About 1.7 million persons worked in 1951 on estates producing primarily export products, such as rubber, coconuts, tobacco, or sugar; 2.6 million, in mining and manufacturing; 2 million, in commerce; 550,000, in transportation and communications; 500,000, in Government service; 210,000, in professions; and 2.4 million in other occupations.

A later estimate, as of 1953, places the labor force at 30 million and gives the following distribution by occupational groups:

	Number (millions)
Production of raw materials	18.2
Industry	4.0
Transportation	.8
Trade	3.0
Professions	.2
Government service	1.8
Other	2.0
Total	30.0

Under present conditions an oversupply of rural unskilled labor exists. Moreover, labor availabilities in the principal urban areas toward which farm people tend to migrate are in excess of the demands of the present limited industrial base. Perhaps 20 percent of the total labor force is without regular work, even though the employment situation has improved since 1952.[1]

As of 1954 an estimated 7 million farmhands were jobless except at harvest time and an estimated 3 million urban workers could find only sporadic employment. Registered unemployed persons are a small part of the total unemployed; those registered numbered only about 60,000 in 1954.[2] Indonesia, therefore, faces serious rural underemployment and urban unemployment—problems that are intensified by an annual increase of about half a million to the labor force.

Both underemployment and unemployment are most serious in Java and Madura, but they are reported to be extensive locally in other sections of the country.

The Government's attempts to alleviate unemployment have had only limited success. The transmigration schemes have moved relatively few persons from Java to the other islands; Government relief projects, such as road and school construction, are on a small scale; and the Government's 200 labor placement offices have been unable to reach many of the jobless and can place only a small percentage of those who register for work.

Although the overall Indonesian labor force is ample, skilled workmen are in short supply. For the most part, farmers and industrial workers lack education and training and have little familiarity with modern production techniques. And despite improvement, the country still has a shortage of vocational training facilities. Moreover, as in some other countries many high school and university graduates are reluctant to do manual work. Experience has shown, however, that Indonesian laborers, when properly trained and supervised, are good industrial workers.

To achieve further economic development Indonesia's skilled labor force must be increased; and, in general, workmen will have to be trained on the job. But as of the present time a serious lack of technicians or managers prevails at all

[1] Employment figures are very incomplete. Figures for employment in village industry, for example, are lacking and those on factory employment consist of percentage increases from a prewar base. No comprehensive statistics on employment have been gathered since the 1930 census. In recent years the International Labor Office has provided some technical assistance to the Indonesian Government to help in developing an adequate labor statistical service.

[2] This is the total number reported registered with the Employment Bureau (Djawatan Penempatan Tenaga).

levels—only 150 to 200 engineers, a handful of trained business administrators, and but few trained supervisors, foremen, and crew bosses. Such skills can be acquired only through education and experience; Indonesia cannot supply them in sufficient quantity for some years to come.

Per capita labor productivity is low, and is considerably below that of prewar years. The abundance of labor, its lack of training, and the absence of capital are basic factors underlying the low productivity. The destruction of facilities and economic dislocations resulting from World War II and the subsequent revolution are additional factors.

Low output has also been attributable to frequent work disruptions caused by insecurity and unsatisfactory labor relations. Moreover, the normal workday was reduced from 9 hours to 7 in 1950, and as a consequence comparisons of present output with that of prewar years are generally unfavorable. Data on which to base a comparison of Indonesia with other undeveloped countries are not available, but statements made by some company managers familiar with operations in a number of countries indicate that the per capita output in Indonesia is among the lowest.

ENTRY OF FOREIGNERS

The Indonesian Government takes the position that the national labor market must be protected, that Indonesians should be placed in responsible positions, and that the entry of foreign employees should be limited to the fewest number possible. The desire to upgrade its nationals in technical, supervisory, and similar types of positions is a natural aspiration, and from a long-range viewpoint, if Indonesia is to compete successfully, a substantial body of Indonesians capable of assuming responsibilities in local enterprises is a necessity. From the short-run viewpoint, however, the attitude of Indonesian officials and unions has in some instances created difficulties.

Some foreign firms report considerable pressure for the replacement of members of their foreign staff with Indonesians. The pressure probably is greatest on firms that have former Dutch colonial personnel, but applies to others as well. Unfortunately, companies operating in Indonesia cannot at the present time find sufficient numbers of Indonesians with the required education and training to fill clerical, technical, or supervisory positions in a manner consistent with sound operations.

The more progressive foreign firms have made a good beginning by training Indonesians and promoting them as rapidly as possible. Although the number of Indonesians in such positions is steadily increasing, it will be many years before Indonesia can supply a sufficient reservoir of technical and managerial personnel at all levels.

The Indonesian Ministry of Labor, which advises the Immigration Service on applications for entry of foreign workers, stated several years ago that the following four factors are taken into account when considering the admission and use of foreigners for employment:

1. The national aspirations of the Indonesian people to occupy important positions in all sectors of the community, in order to give effect to independence in the widest sense of the word.
2. Protection of the national labor market.
3. The interests of the state, by decreasing payments abroad.
4. Security and defense of the state, particularly in critical times.

The two basic rules used by the Ministry in approving any particular entry permit were stated as follows:

1. The expert knowledge, or skill in a particular line, of a foreign worker must be proved satisfactorily (by means of photographs of diplomas and other certificates);
2. The economic necessity in connection with the economic reconstruction of the state or the needs of the Government must also be proved. Each case will be examined individually by the Ministry of Labor, and the necessary information will be sought from Government authorities, trade unions, and employers. (The employer must submit staffing details.)

Implementation of these regulations has frequently resulted in delays and difficulties for foreign companies in obtaining entry approval for technicians or specialists when needed. This is one of the present irritations facing companies operating in Indonesia.

WAGES AND HOURS

This discussion of wage-paid labor necessarily concerns only a small part of the working population. A large percentage of Indonesians farm their own small plots and raise much of their own food.

Wages

Indonesian wage levels when measured on a cash basis are low, but much of the wage is paid in kind. Moreover, since labor productivity is so much lower than in prewar years many employers consider the present wages high in relation to output.

Indonesia has no minimum wage legislation, but wages are regulated to some extent by the Government through minimum wage rates issued for various regions, and through arbitration of labor disputes. Industrywide collective bargaining has resulted in a considerable degree of uniformity in wage rates in the larger enterprises.

Although postwar wages may appear high in relation to output, especially when the latter is compared with prewar productivity, wage increases do not seem out of line with increases in living costs and there are indications that wages have in fact lagged considerably behind. Comparable indexes are not available, but the price index of foodstuffs, which constitutes a major component of living costs for the laboring class, at the end of 1954 was 3,256 in Djakarta (July 1938=100), whereas available wage-rate indexes (for estate workers, rather than Djakarta laborers) stood at 2,500 to 3,000 for early 1954 on a 1941 base of 100.

Additional price inflation has occurred since 1941; in general, wage increases did not keep pace with the rise in living costs in 1954 and 1955. One report prepared by a labor group concerning the cost of living of workers claimed that the workers' real wage in late 1954 was about half that of 1938.

Tables 46 and 47 provide such data as are available concerning wage rates. Table 46, which gives minimum daily wages on the Java sugar estates and on the estates producing perennial crops on

Table 46.—Minimum Wages in Estate Agriculture in Java and Sumatra, 1941 and 1952–54

[In rupiah per day as of end of year]

Industry and wage	1941	1952	1953	1954
	Java			
Sugar Industry				
Absolute wage:				
In money	0.275	4.00	4.00	4.00
In kind		2.70	2.70	3.80
Total	.275	6.70	6.70	7.80
Percentage of 1941 wage	*100*	*2,436*	*2,436*	*2,836*
Nominal wage per net working day	.275	8.15	8.15	9.49
Percentage of 1941 wage	*100*	*2,964*	*2,964*	*3,451*
Perennial Crops				
Absolute wage:				
In money	.275	3.00	3.50	3.50
In kind		1.60	1.80	2.16
Total	.275	4.60	5.30	5.66
Percentage of 1941 wage	*100*	*1,673*	*1,927*	*2,058*
Nominal wage per net working day	.275	5.60	6.45	6.89
Percentage of 1941 wage	*100*	*2,036*	*2,345*	*2,505*
	Sumatra			
Perennial Crops				
Absolute wage:				
In money	0.35	3.25	3.75	3.75
In kind		5.80	5.80	6.64
Total	.35	9.05	9.55	10.39
Percentage of 1941 wage	*100*	*2,586*	*2,729*	*2,969*
Nominal wage per net working day	.35	11.01	11.62	12.64
Percentage of 1941 wage	*100*	*3,146*	*3,320*	*3,644*

Source: Bank of Indonesia, *Report for the Year 1954–1955*.

Note.—Absolute wage is the amount paid out to a worker (with a nonworking wife and two children) as wages in money, plus the value of supplies in kind, exclusive of bonuses and other social benefits. Wage costs per net working day are calculated on the basis of the employer's total wage expenditure per worker per year, including housing and social services, divided by the number of working days per year.

Table 47.—Minimum Wages in Various Industries in Java, 1953–54

[In rupiah per day as of beginning of year]

Industry	1953	1954
Estate agriculture	3.00–4.00	[1] 3.50–4.50
Mining	6.00	6.00
Food and drink	3.75	3.50–4.50
Tobacco	2.00–4.00	4.50
Sugar and rice milling	2.50–3.50	4.00–4.50
Chemical	3.00–4.50	3.50–5.00
Leather tanning	3.50	3.50–4.00
Furniture	n. a.	3.50–4.50
Textile	2.50–4.00	2.50–4.50
Transport companies	n. a.	5.00–7.00
Metal	4.00–5.50	5.25–6.00
Shipbuilding	4.00–5.50	5.30–6.25
Coconut oil	3.00–3.50	3.50–4.00
Ice factories	4.00	4.00–4.50

n. a.—Data are not available.

[1] In January 1955 a ruling of the Government's Central Arbitration Committee (P4P) raised the lowest minimum wage of estate workers from 3.50 rupiah to 3.75 and required employers to sell workers certain textiles at 35 percent of cost. A previous decision to sell workers rice at 15 percent of cost presumably still remains in effect. This change for estate workers is particularly important because as the largest segment of the paid labor force their pay rates, in effect, set a floor on wage rates for all concerns employing large numbers of laborers.

Source: Bank of Indonesia, *Report for the Year 1954–1955*. Based on data of the Labor Control Service.

both Java and Sumatra, is based on the wage of a worker with a nonworking wife and two children. The general wage trend shown is considered as representative of other segments of the labor force. Comparable data are not available for 1955; however, the overall wage trend was upward, with the lowest basic rate for estate workers raised to 3.75 rupiah as of January 1955. Table 47 gives minimum wage rates as of 1953 and 1954 for various industrial groups. It should be noted that these figures only give the minimum payment in money. They do not present a complete picture of wages paid since payments in kind, cost-of-living supplemental bonuses, and social provisions are not included.

Additional wage data are fragmentary but the following average wages as opposed to minimum rates—for several industries in which foreign concerns are operating—provide a basis of measurement. As of early 1954 the total average wage for a laborer with a nonworking wife and two children on a rubber estate of East Coast Sumatra was about 11 rupiah per day, including the cost of the food packet and premium pay (earned because of increased production); in addition, housing and various social services were provided.

Other estates (tobacco and perennial crops) reported average monthly wages of about 280 rupiah; housing and social services were provided without charge. Average gross pay—including food packets and other emoluments—for unskilled workers not living in company houses was reported by one of the oil companies as 828 rupiah per month.

In manufacturing industries, the wages paid in the larger establishments and in the smaller ones vary considerably. In general, foreign companies pay wages at the highest rates for any

particular type of work. For example, in a large cigarette factory the minimum daily rate may be three times as high as in a small cigarette factory. Wage rates also vary considerably from place to place within Indonesia. Wages tend to be somewhat lower in Java—where there is a labor surplus—than in Sumatra or Borneo. In general, wages in Djakarta are above those of Surabaja and Semarang and wages in Medan are higher than in Djakarta.

Hours of Work

The 40-hour week and the basic 7-hour day are the standard for employment throughout Indonesia. Overtime, which must not exceed 14 hours per week, requires special permission from the Government.

Workers are entitled to 1 day off a week, 2 weeks' paid vacation, official holidays (which number about 20 per year), and free time for the performance of religious rites.

LABOR LEGISLATION

In the prewar colonial period labor legislation was concerned largely with contract labor employed on the estates, in mines, and in the sawmilling industry. Because most of the contract laborers were recruited from the overpopulated areas of Java to work in Sumatra or the other islands at considerable distances from their homes, the purpose of the legislation was: (1) To protect employers (mostly estate operators) from the desertion of workers and their refusal to work; and (2) to protect workers against abuses concerning work contracts, wages, hours, and working and living conditions.

Much of this legislation was superseded by the omnibus Labor Code of 1948, which set standards to be implemented gradually by various ordinances. Some provisions of this law, such as those dealing with women, hours, and holidays, have been implemented, whereas others have become rather common practice but are not legally required. The principal provisions of the code, including provisions added since 1948, are:

1. Children under 14 cannot be employed for wages.
2. Women and adolescents cannot be used in nightwork or in unhealthful work.
3. Hours of work are limited to 7 a day or 40 a week, with night work limited to 6 per day or 35 per week.
4. Workers are entitled to 1 day off per week, free time for the performance of religious rites, and a holiday on May 1.
5. Workers are entitled to all official holidays and vacations of 2 weeks for each year of service up to 6 years of service. After 6 years of service they become entitled to 3 months of leave.[3]
6. Women are to be granted 2 days' menstrual leave and 3 months' maternity leave.
7. Places of employment and houses provided must meet with sanitary requirements and be subject to inspection.
8. Violations are punishable by fines and imprisonment.

The basic legislation that now concerns labor union and labor disputes is embodied in "Emergency Act of the Settlement of Labor Conflicts," officially known as Emergency Law No. 16 of 1951. This law establishes a procedure for settling labor disputes between workers and employers by regional boards. If settlement cannot be reached, the regional board (P4D) is required to refer the dispute to a regional committee[4] for decision. The committee's decision may be appealed to the central committee (P4P),[5] which has broad powers.

In the last several years numerous labor bills have been drafted of which the more important ones deal with mediation in dispute settlements, dismissals, collective agreements, registration of trade unions, registration of enterprises, pensions, sick benefits, and unemployment. As of late 1955 most of these bills had not been enacted and were in various states of completion, with expected instances of extensive redrafting.

Action has taken place in relation to two of the bills: (1) A bill on registration of enterprises was replaced by a decree in December 1953[6] requiring employers to report on conditions of their businesses, and (2) a bill on collective agreements was approved by Parliament and promulgated in June 1954. The text of this decree and the law are given in appendix F.

At present only one social security law is in effect, the Labor Accident Law of 1951. This law, based on the old Dutch civil code, makes the employer liable for medical care and full or partial wage payments to workers injured in the line of duty. In the event of death, the employer must pay burial expenses and periodic or lump-sum payments to the worker's dependents. The law covers only enterprises in which there are hazards

[3] This provision is designed to enable workers to return to their native villages.

[4] A regional disputes committee consists of a chairman of the regional board and representatives of the Ministries of Labor, Internal Affairs, Economic Affairs, Agriculture, Finance, Communications, and Public Works and Power.

[5] The Central Disputes Arbitration Committee (P4P) is composed of the Minister of Labor as chairman and the Ministers of Economic Affairs, Agriculture, Finance, Communications, Public Works and Power, and Justice.

[6] The proposed bill was to have been a companion bill to one providing for the registration of trade unions. When the latter bill was withdrawn because of the strong objections of communist-dominated labor unions, the bill on registering enterprises was replaced by a Government regulation. The proposed law on registration of labor unions was to be replaced by a Government regulation, but as of late 1955 no regulation had been issued.

or risks, as determined in each individual case by the Ministry of Labor.[7]

Labor legislation is administered by the Ministry of Labor, established in the early postwar period. The Ministry maintains regional labor offices in the larger cities. These offices house the Labor Mediation Service, the Labor Inspection Service, and the Labor Information Service and are responsible for local labor inspection, mediation, conciliation, and registration of the unemployed. The offices have small staffs which are not uniformly well trained in labor matters.

LABOR ORGANIZATION

In prewar years the growth of trade unionism in the Netherlands Indies was slow in tempo and small in scale. However, in postwar Indonesia, which provides freedom for labor organization, the movement has been markedly accelerated. Workers in estate agriculture, oil production, and the manufacturing industries which are foreign owned are generally organized. Many of the Indonesian labor unions are weak and inexperienced. Left-wing political leadership, which was active in the early movement, predominates in the present labor organizations. The largest labor federation is communist dominated, forming the trade-union branch of the Communist Party in Indonesia, and it is affiliated with the Communist World Federation of Trade Unions (WFTU).

Trade unions are considered by the Indonesian Government to be such a basic and desirable part of the country's social structure that they are recognized in the Provisional Constitution and are given Government subsidies to pay for their educational activities. Most unions are organized on industrial lines, and local unions have affiliations with national unions through both regional federations and industrywide federations.

Available statistics on union membership are considered inaccurate since the membership data furnished the Ministry of Labor are known to be padded out of proportion to the actual numbers. Total numbers of unionized labor are variously estimated at 1.5 million to 5 million persons. Most of the so-called "members" are not members in the Western sense of being dues payers. The Indonesian Ministry of Labor reported that as of late 1954 there were 7 national labor federations, about 180 national or regional unions, and more than 1,100 local independent unions.

The communist-dominated federation, Serikat Organgasi Buruh Seluruh Indonesia (SOBSI), claimed a membership of about 2.7 million as of 1955, but it was believed actually to control only about one-third this number and many of these were not dues-paying members. SOBSI frequently has moved in on a disturbing local labor situation, bargained for the workers, and then claimed them as "members."

The importance of SOBSI lies not only in its large membership, but also in the fact that many Indonesians associate it with the country's fight for independence. Apparently many laborers are attracted to the SOBSI propaganda, which fosters the prevalent anticolonial and anti-imperialist feeling, overlooking that in 1948 some of SOBSI's top leaders were involved in the communist attempt to seize governmental power (the Madiun revolt).

SOBSI has national, regional, provincial, and local commissariats as well as various industrial divisions based on the type of product or type of work, i. e., estate workers,[8] rubber workers, oil workers, transport workers, etc. Although the top leadership is believed to be entirely communist, most of its members and many of its officials are not.

Aside from SOBSI another federation—Sentral Organisasi Buruh Republik Indonesia (SOBRI)—is communist in orientation. This federation, which at present has only a small membership, has long been guided by the Trotzkyite Communist Party and is a member of the World Federation of Trade Unions. In late 1953 SOBRI's secretary general announced that this group would cooperate with SOBSI insofar as possible.

The noncommunist portion of the Indonesian labor movement has been primarily under the leadership of persons associated with various political parties. In the postwar period several federations have been established, banded together in loose and frequently changing combinations. None of the federations as of 1955 were affiliated with the International Confederation of Free Trade Unions (ICFTU); nor were they affiliated with trade unions in Western countries, although some factions are working for such affiliations.

The principal noncommunist national federation as of early 1955 was the Kongres Buruh Seluruh Indonesia (KBSI), formed in 1953 out of a loose "counsil" of several earlier federations and representing diverse noncommunist political elements. Serikat Buruh Islam Indonesia (SBII) is a trade-union organization affiliated with the Masjumi (Moslem) Party.

Other noncommunist federations include one of Government workers (GSBI), one associated with the Nationalist Party (KBKI), one associated with the Labor Party (HISSBI), and one established by the orthodox Moslem Party (IBNU). Lack of sufficient funds, inexperience in labor matters, and the absence of overall cohesion have made the work of the noncommunist labor groups extremely difficult.

[7] In industries not covered by this law it is also customary to pay all or part of the employee's salary during an extended illness and burial costs and other payments in the event of death. It has also become customary to provide health insurance for employees although no law requires it. Some plans provide both medical and hospital care.

[8] The most important union within SOBSI is SARBUPRI, a national union of estate workers.

LABOR-MANAGEMENT RELATIONS

Labor unrest, including strikes, work stoppages, and disputes, has been relatively common in postwar Indonesia. Records indicate that on the average about 3.8 million man-hours have been lost annually in the 5 years 1950–54 because of strikes (table 48). In 1954, in addition to disputes resulting in strikes, there were 2,220 disputes involving 1,707,000 employees. On the basis of data for the first 9 months, more man-hours were lost in 1955 than in 1954.

Table 48.—Number of Strikes in Indonesia and Man-Hours Lost, 1950–54

Year	Strikes	Workers involved	Man-hours lost
1950	144	490, 539	7, 784, 271
1951	541	319, 030	3, 719, 914
1952	349	132, 963	878, 911
1953	266	411, 446	4, 352, 418
1954	306	141, 707	1, 700, 659

Source: Bank of Indonesia, *Report for the Year 1954–1955*. Based on data of the Ministry of Labor (Kementerian Perburugan).

This loss of man-hours at the going wage rates represents but a minor portion of the gross national product; however, rubber estates, the petroleum industry, shipping, and the large manufacturing establishments have been particularly affected by the labor unrest. Consequently, the economy has suffered in sectors in which the contributions to total output and foreign exchange earnings are unusually important. The greatest number of strikes and disputes have been on the agricultural estates and in industry; these two categories accounted for about 35 percent of all disputes in 1953 and 1954 and more than 80 percent of the disputes in the first quarter of 1955.

General demands with respect to wages and individual dismissals are the object of most strikes and disputes. Much of the labor unrest has resulted from the inflationary conditions which have prevailed in postwar Indonesia. In some instances, however, strikes and other labor difficulties have been encouraged by communist trade-union leaders, especially on estates and in other industries owned by foreign enterprises and in vital industries. In addition to troubles on the estates, which loom largest for the postwar period as a whole, there have been disputes and go-slow movements in mining, in manufacturing plants, and in the transportation system (especially among dockworkers).

Collective bargaining has had an immense growth in a relatively short time in the postwar labor movement. Virtually all major industrial enterprises that employ a considerable number of workers are covered by some kind of contract negotiated by a union. For the most part, however, these contracts are not the result of true collective bargaining nor are they contracts in the sense of those used in Western countries. Most of them could be termed "temporary arrangements," subject to reopening almost at will by either party.

As indicated earlier, a procedure for handling labor disputes was established by Emergency Law No. 16 of 1951. Although this law provides the opportunity for local and regional settlement of labor difficulties, almost all major decisions have in actuality been made by the Government's Central Disputes Arbitration Committee (P4P), which has binding and compulsory arbitration powers.[9] Detailed regulations on dismissals, for example, have been developed and are enforced by the P4P. These regulations require employers to give employees 1 to 4 months' notice before dismissal, except for dismissal for cause, and to inform the Ministry of Labor a month in advance of any planned layoff of more than 10 workers.

[9] The heavy workload placed on this committee, together with the time limit on some of its decisions, has meant that the committee has had insufficient time to give full consideration to all aspects of the disputes referred to it. Moreover, a study of the various decisions rendered by the P4P and the regional P4D committees does not reveal any particular set of principles upon which they have been based.

Taxation

GENERAL TAX STRUCTURE

The taxes and duties levied in Indonesia are, with very few exceptions, for general revenue purposes. None of the taxes are considered protective. A comparatively heavy dependence on taxes on commodities—the so-called "indirect taxes"—is characteristic of the tax structure. Import and export duties and charges, although not described in this chapter since they are covered elsewhere,[1] are a major part of the Indonesian Government's tax revenue. Excise taxes, the company tax, and the income tax are the other most important revenue sources (table 49). The heaviest tax burden in Indonesia falls on the export-import segment of the economy.[2]

Table 49.—Major Sources of Indonesian Tax Revenue, 1952–54

[In millions of rupiah]

Tax	1952		1953 [1]		1954 [1]	
	Amount	Percent of total	Amount	Percent of total	Amount	Percent of total
Import duties	1,397	20	1,295	20	995	16
Export duties	1,820	26	1,049	16	546	9
Excise taxes [2]	1,097	16	1,366	21	1,593	25
Company tax	897	13	1,084	16	1,331	21
Income tax	657	9	644	10	786	12
Sales tax	628	9	557	9	576	9
Wages tax	185	3	230	4	244	4
Other taxes	306	4	243	4	271	4
Total tax receipts	6,987	100	6,468	100	6,342	100

[1] Preliminary figures.
[2] Major income derived from excise taxes on petroleum products and tobacco products.

Source: Central Bureau of Statistics (Kantor Pusat Statistik), *Statistik Konjunktur*, June 1955.

The tax system is successful in capturing a substantial part of windfall profits and general income profits, particularly in the export sector, but it is considered deficient in collecting from much of the nonurban sector. A recent study of the Indonesian tax structure indicates that some areas within the rural segment of the economy are almost completely free from taxation and others are undertaxed. It is believed that a greater stability of tax income could be achieved if greater dependence were placed on the rural sector of the economy as a source of tax revenue.[3]

The Indonesian taxes of primary concern to foreign business and trade are the national taxes, which are summarized in this chapter. Provincial and other local taxes are less significant and consist chiefly of property and license taxes on businesses and occupations. Some of these local taxes, however, are important to business operations or to foreigners living in Indonesia. Since these taxes vary considerably from place to place details should be obtained from local authorities. Included in this chapter is a summary of typical municipal taxes; unfortunately, it has not been possible to provide a similar summary of Provincial taxes.

The enforcement of taxes in Indonesia is not uniformly strict and many people do not pay full taxes. It has been estimated that stricter enforcement and more adequate administration of two important revenue producers—the company tax and the income tax—could double the yield of these levies at current rates. Some segments, such as the upper income groups in the rural sector, are believed to be escaping Central tax administration to an important degree. Foreign companies and foreigners working in Indonesia, however, almost without exception pay the prescribed taxes and thereby provide directly and indirectly a significant part of Indonesia's total tax revenue.

INCOME TAXES

Personal Income Tax

Indonesia's income tax[4] is applied to all income in excess of 400 rupiah annually.[5] It is used in conjunction with the wages tax where the income is sufficiently high to place the taxpayer in brackets subject to the income tax. At the present time all income not subject to the corporation tax, described later, is subject to the personal income tax.

[1] See chapter XI.
[2] In the case of imports this means that the burden ultimately falls on the consumer of imported goods in Indonesia. With the exception of textiles, Indonesians have in the past consumed only a relatively small part of imported goods, so much of this tax burden has fallen on the non-Indonesian segment of the population.

[3] *Ekonomi dan Keuangan Indonesia,* vol. VII, No. 9 (September 1954). See article, entitled "The Tax Burden and Economic Development in Indonesia," by Douglas S. Paauw.
[4] Prior to 1952 the postwar income tax was referred to as the transition tax.
[5] For tax purposes, dollars are converted at the basic rate of 11.40 rupiah equal US$1.

Tax liability.—The tax liability of an individual depends on his status as a resident or nonresident. American businessmen working in Indonesia fall into both groups. Whether an individual is considered a resident for tax purposes depends on many factors, such as duration and character of his stay in Indonesia, whether he leaves his family at home, and his tax status in his own country.

Obligation to pay begins on the date of arrival in Indonesia and ends at the time of departure. Periods of less than a calendar year are divided on a monthly basis.

Regardless of his nationality a person who is a resident of Indonesia is subject to the income tax on his entire income, i. e., his income both in Indonesia and abroad. He is, however, entitled to a tax reduction corresponding to the amount of the tax on certain (not all) parts of the foreign income.

Nonresidents, who have a limited tax liability, are subject only to tax on income from the following categories derived from local (Indonesian) sources: Real property; interest on loans secured by mortgages on real property; income from a profession or trade; and periodical payments by the Treasury of public funds for past or present services.

These categories of income are defined more fully as follows:

1. The income from real property includes all income derived by the taxpayer in virtue of ownership or any other title to the income therefrom, provided such income is not derived from capital invested by the taxpayer in his own trade or profession. The owner of a house is taxable on its rental value.

2. The income from personal property includes dividends (stock dividends or bonus shares), interest of all kinds, rent from leasing personal property, and all other income from personal capital, provided it is not used in the taxpayer's own business or profession. In the case of repayment of borrowed money, if the amount received exceeds that originally loaned, the excess is regarded as income.

3. Income from a profession or trade includes the earnings of the taxpayer in money or in kind, and what he takes from his own produce for his personal use, as well as profits from the carrying on of agriculture, maritime commerce, handicraft, mining, manufacturing, practicing an art or science, or from any other profession or trade. The income from salaried employment includes everything earned by the taxpayer in money or in kind, whether in the form of a fixed salary, a share of the profits, or any other remuneration. Income includes free board and lodging, free house rent, medical attendance, medicine, allowance for table expenses, vacation pay, and unemployment pay, as well as all bonuses and other gratuities.

4. Periodical payments include furlough allowances, half-pay, subsistence allowances, pensions, wages, annuities, and, in general, all payments which are not connected with the carrying on of trade, the exercise of a profession, or the performance of a service, and which end with the decease of the person interested or of a third party.

Tax rates.—The income tax rates as of 1955, some of which are listed below, were established effective January 1, 1952. This tariff (Tariff B 1952) is confined to annual incomes of 5,000 rupiah or more. The complete tabulation of rates is graduated in steps of 100 rupiah. Incomes of less than 5,000 rupiah are subject to rates set forth in Tariff A 1952, which divides these smaller incomes for tax purposes into 17 groups, with the amount of taxes varying from 5 rupiah to 135 rupiah per year, based on the number of dependents as well as on the exact income.

Rates are based on those fixed for married taxpayers. Single taxpayers must add 5 percent to their net income and pay the tax for the resulting figure. Effective rates begin at slightly less than 3 percent and rise to about 55 percent, plus 75 percent of each additional 100 rupiah, on incomes over 300,000 rupiah. For purposes of illustration, the basic rates, i. e., for a married person with no children, are as follows:

Income (in rupiah)	*Tax (in rupiah)*
5,000	150
25,000	2, 215
50,000	10, 956
100,000	35, 931
300,000	[1] 172, 780

[1] Plus 75 rupiah for every additional 100 rupiah income.

Exemptions are allowed for dependents, graduated from 600 rupiah (1 dependent), 1,140 rupiah (2 dependents), and 1,620 (3 dependents) to a limit of 3,300 rupiah (10 or more dependents).

The income rates, except for persons with very low incomes, are higher than in the United States (see table 50 for comparative data).

Table 50.—Taxes Payable by a Married Taxpayer With One Child, in Indonesia and the United States, by Income Group

Total income (dollars)	Indonesian income tax		United States income tax (1955 rate in dollars)
	Rupiah	U. S. dollar equivalent [1]	
5,000	13, 600	1, 193	664
7,500	27, 795	2, 438	1, 282
10,000	44, 400	3, 895	2, 028
12,500	62, 295	5, 464	2, 906
15,000	80, 360	7, 049	3, 916
17,500	100, 500	8, 816	5, 059
20,000	120, 400	10, 561	6, 306

[1] Converted at rate of 11.40 rupiah equal US $1.

The tax rates in Indonesia, since they exceed those paid by individuals in the United States, present problems to American companies that find it necessary to bring in technical and supervisory personnel. Companies that follow the policy of charging the full Indonesian tax to their employees find it difficult to attract personnel of adequate caliber. Some companies operating in many parts

of the world follow the policy of guaranteeing their employees the payment of that part of income taxes abroad which exceed charges in the United States; for these companies their Indonesian operations require additional payments from company funds.

As a result of the high income tax level, various practices reportedly have been used to avoid the full tax. Moreover, although the official rate of 11.40 rupiah to the dollar is the exchange rate prescribed for tax purposes, in recent years some earners of dollar income are said to have converted dollars to rupiah at the market rates. With curb rates in 1955 ranging, for example, as high as 25 to 38 rupiah per dollar, it is clear that substantial savings can be made by those who obtain their rupiah at the curb rate for use in paying their income taxes.

Wages Tax

The wages tax is levied on all wages earned in private or public service with the exception of wage earnings from agricultural pursuits carried out on land registered under Indonesian *adat* law and from domestic service. Since estates are registered under Western law, wages paid in estate agriculture are subject to the wages tax.

The rate has been on a progressive scale since 1947 and at present begins at 3 percent for incomes under 1,500 rupiah and increases to a maximum of 15 percent for wages of more than 12,000 rupiah.

The wages tax, which operates in conjunction with the income tax on personal income, is generally withheld by the employer from the wages of employees. An employee with an annual wage of less than 1,500 rupiah is subject only to the wages tax but one receiving 1,500 rupiah or more is also subject to the income tax. In the latter case, however, the employee's assessment is reduced by the amount of the wages tax he paid and the employer, who is responsible to the Government for payment of the tax, may deduct the amount from the wages paid.

Company or Corporation Tax

The basic company tax law is that of 1925 for the Netherlands Indies as amended.[6] Under this law a tax is levied on:

1. The profits earned by limited liability companies, limited partnerships with share capital, and other companies and associations whose capital is wholly or partly divided into shares, cooperative societies, and mutual insurance companies domiciled in Indonesia.

2. The profits earned by associations domiciled in Indonesia whose capital is not divided into shares and also by institutions the profits of which are derived from operations other than those carried on exclusively for the promotion of a general social interest.

3. The profits of corporations not domiciled in Indonesia from enterprises carried on within Indonesia by a fixed establishment there, or from real estate located there (including titles based thereon), or, in case of the transfer of such rights, on profits dependent on the quantity or yield of the products obtained from the exploitation of such property.

Allowable deductions from gross income include expenses incurred in making, collecting, and maintaining net profit. Deductions are also permitted for interest paid on loans, depreciation of assets used in the business, and bad debts contracted in conducting the business and written off on account of the expiration of rights (e. g., leaseholds) which are subject to a limited period. A loss suffered in 1 year may be deducted from the profit made during the 4 succeeding years.

Capital expenditures for the creation or increase of a reserve fund, for interest paid on capital invested in the business, or for any tax on profits derived in Indonesia (i. e., the Indonesia company tax or a foreign tax) are not allowable deductions.

Since January 1, 1952, the rates, which are on a graduated basis assessed on net profits, have ranged from 40 to 52½ percent as follows:[7]

Net profit (in rupiah)	*Tax rate (percent)*
Below 500,000	40
500,000 to 1,000,000	42½
1,000,000 to 1,500,000	45
1,500,000 to 2,000,000	47½
2,000,000 to 2,500,000	50
2,500,000 and over	52½

Double Taxation of Income

Before the transfer of sovereignty the Netherlands had negotiated treaties for the prevention of double taxation with several countries and provisions were included in some of these treaties to provide coverage for the Netherlands Indies. The convention between the United States and the Netherlands concluded in 1948 did not, however, include any provisions concerning the Netherlands Indies; nor has a treaty for this purpose been negotiated between the United States and Indonesia since the attainment of sovereignty.

American citizens and firms, therefore, may have a tax liability in both Indonesia and the United States in respect to the same items of income. The prospective foreign investor must consider the

[6] The latest amendment is that of Emergency Law No. 11 of 1952. Appendix G gives a translation of the company tax law as amended, together with a 1953 decree of the Minister of Finance which explains depreciation allowances.

[7] These rates were instituted by Emergency Law No. 2, 1952 (promulgated January 10, 1952). Prior to 1952 the rate was 40 percent across the board, i. e., 10 percent plus a surcharge of 300 percent. Emergency Law No. 2 indicated that new rates would be established each year. Although several proposals have been made for new rates since 1952, as of January 1956 there had been no announcement of new rates and the above rates are the current ones.

effects of Indonesian taxation in conjunction with such provisions of the United States tax legislation as bear on the subject of taxation of foreign income received by United States taxpayers.[8]

The U. S. Internal Revenue Code of 1954 provides relief for income received from foreign sources under certain conditions. Among the pertinent provisions of the code are the following:

1. Sections 164 and 901, which permit, within certain limits, either a deduction or a credit for foreign income taxes (or a tax in lieu of an income tax) paid by the United States taxpayer.

2. Section 911, which provides that an individual citizen may exclude from his gross income amounts received for personal services performed outside the United States if he has been a bona fide resident in a foreign country for an uninterrupted period which includes the tax year. As an alternative, earned income (limited to $20,000 per taxable year) may be excluded for the entire period if the taxpayer is merely present in a foreign country for at least 510 full days in any period of 18 consecutive months.

OTHER NATIONAL TAXES

In addition to the personal income tax and the company tax, the two major levies affecting foreign businessmen, there are numerous national taxes on which full details of the present methods of assessment and collection are not readily at hand. Among these are the personal property tax, property transfer tax, reconstruction tax, and radio tax—mentioned below—as well as other national taxes for which somewhat more information is available.

The personal property tax (use tax) in prewar years was conceived as a tax on the use of various kinds of capital and durable goods. It included a tax on actual or imputed rental value, household furnishings, and vehicles. Since the war the tax has not been collected on rent and furnishings so that at present it amounts to a levy on certain types of vehicles. The annual flat rates as of 1952 were 144 rupiah per automobile and 54 rupiah per motorcycle. The tax was increased in 1953.

The property transfer tax is a levy of 5 percent of the selling price of real estate registered according to Western (as opposed to *adat*) law.

Payments made in hotels and restaurants have been subject to a 10-percent levy (reconstruction tax) since 1951.

A radio tax, introduced in 1951, is levied on all radio receivers. The monthly charge as of 1953 was 5 rupiah per set.

Other national taxes are described below.

[8] For a brief discussion of United States taxation of foreign income see chapter 14 of *Foreign Investment and Taxation*, by E. R. Barlow and Ira T. Wender. Prentice-Hall, Inc., 1955.

Premises Tax

This tax is on real estate and property registered according to Western law; that owned by Indonesians under *adat* law is excluded.[9] The tax has been levied on two categories: (1) Property with buildings; and (2) plantation real estate.

The first type of property is assessed yearly on a rule-of-thumb formula of 10 times the annual rental value and is subject to a tax of three-fourths of 1 percent of the assessed value of the property. The tax on the second type, which was assessed every 5 years, with the value of the property determined principally on the basis of annual profits, has not been enforced in postwar years.

Capital Assets Tax

This tax, sometimes referred to as the property or wealth tax, dates from 1932. It is applied to the capital assets of individuals—savings, cash balances, investments, real estate, residential property, and all other items possessing monetary value. Prior to 1952 it was levied at low progressive rates; it is now collected at the rate of 5 rupiah per thousand on net worth over 250,000 rupiah. However, valuations have not been revised to keep pace with the general price increase of recent years.

All residents are subject to this tax. Nonresidents are subject to it if they (1) Possess title to real estate or its equivalent in Indonesia; (2) own or enjoy the benefit from claims on debts covered by real estate mortgages in Indonesia; (3) carry on, personally or through representatives, a regular[10] trade or profession (except employment) in Indonesia; (4) derive benefits from such trade or profession in other manner than as described in (3) but not by virtue of current employment contracts or as shareholders or holders of profit or organizer's certificates.

Sales and Stamp Taxes

A sales tax, which replaced a turnover tax in 1951, is a general levy on manufactured goods, both imported and domestically produced. Primary foodstuffs and many essentials are free of this tax. Rates are 5 percent on goods classed as necessities and 10 percent on luxury goods. It is payable by importers or manufacturers upon delivery of the goods.

Stamp taxes of various ad valorem and specific rates are applicable to documents which must have their legality established. As of a few years ago

[9] Formerly a land rent tax was applicable to land owned according to *adat* law. This was abolished in 1951 with the plan of replacing it with a tax on production from such land, but no tax of this type has been instituted.

[10] By "regular" is meant that the trade or profession is of at least 3 months' duration.

the maximum ad valorem rate was about 2½ percent. See chapter XIV for stamp taxes on documents required in connection with establishing a business in Indonesia.

Motor Vehicle Tax

A law of 1953 imposes taxes on "luxury automobiles," i. e., automotive vehicles not for public transportation with cylinder capacity of 2,000 cubic centimeters or more, if the model was new within the last 5 years. All United States models are subject to this tax.

The rates, as assessed by the Minister of Finance, are as follows:

Cylinder capacity (in cubic centimeters)	*Tax per year (in rupiah)*
2,000 to 2,500	600
2,500 to 3,000	1,200
3,000 to 3,500	2,400
3,500 to 4,000	3,600
4,000 or over	4,800

Excise Taxes

These taxes are levied on alcohol, beer, petroleum products, tobacco products, and sugar, as well as on a number of other products. The levies on petroleum products and tobacco products provide most of the revenue from these taxes.

The excise tax on alcohol, which dates from 1874, is levied on alcohol produced and consumed in Java and Madura and on that brought into these islands from the Outer Islands. Outside Java and Madura alcohol is not subject to excise, but an import duty is levied on alcohol originating in Java or Madura. An import duty is levied on foreign alcohol imported into Indonesia, the amount of this duty being equivalent to the amount of the excise. The excise rate (basic rate plus surcharge)[11] is 750 rupiah per hectoliter of 50-percent strength.

Since 1931 an excise has been levied on beer produced domestically. On foreign manufactured beer an equivalent import duty is levied on its importation into Indonesia. The rate of excise has changed several times, the present rate being 82.50 rupiah per hectoliter.

The excise on petroleum products, which dates back to 1886, is levied as follows (as of 1955):

1. Ordinary lighting petroleum or kerosene, 7 rupiah per hectoliter. The excise is equivalent to the amount of import duty.
2. Gasoline, benzine, and all other petroleum derivatives which are more volatile than petroleum, 50 rupiah per hectoliter. This excise is levied on foreign as well as domestically produced petroleum and, in the case of foreign petroleum, the excise is levied in addition to the import duty.

A general excise has been imposed on tobacco products since 1932. It is levied on cigars, cigarettes, "strootjes" (native cigarettes), cut tobacco, snuff, and other prepared tobacco for consumption, except tobacco grown in Indonesia, unpacked or packed in the native manner. The tax amounts to 40 percent of the retail prices of cigarettes and cut tobacco and 30 percent of the prices of other tobacco products.

An excise has been in effect since 1934 on cane, beet, and other sugar having a chemical composition similar to cane sugar, solid or liquid, regardless of the degree of purity. The rate as of 1954 was 27 rupiah per 100 kilograms. However, sugar produced by Indonesian farmers in the native manner without the aid of mechanically driven apparatus is exempt. Saccharine and other synthetic sweetstuffs with a sweetening capacity higher than sugar, either manufactured or imported into Indonesia, are also subject to an excise.

MUNICIPAL TAXES

Municipalities in Indonesia are autonomous and the taxes levied by them are consequently not uniform. However, those of Djakarta may be generally regarded as typical of the taxes imposed by other important municipalities.

Djakarta taxes are reported to include the following: Surtax on the national income tax; surtax on the national premises tax; advertising tax (on boards or posters); amusement tax (collected for entrance to public amusement places); tax on strong drinks (levied on the holder of a permit for the sale of strong drinks); street tax (levied on real estate bordering or adjacent to public roads or parks maintained by the city); vehicle tax (levied on all vehicles except those on rails and bicycles); bicycle tax (levied on bicycles in use and kept within the municipality); fireworks tax (levied on the manufacture of and trade in fireworks); and a dog tax.

In addition there are general levies for the Health Service, the Fire Service, and for the garbage and sewer departments. The rates have varied, but are generally considered moderate.

[11] The specific rates given for excise taxes were placed in force as of January 1954. Since surtaxes are fixed at different percentages from time to time current rates may not be the same as shown here.

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Business Laws and Organization

Much of the current Indonesian legislation affecting business operations is still that of the former Netherlands Indies. The Provisional Constitution of the Republic of Indonesia, approved in August 1950, provided for the transfer of these laws to the newly independent country. No overall revision of the Commercial Code has been made and no new basic legislation has been passed regarding ownership of land, mineral rights and industrial property rights, and the licensing of industrial enterprises.

There have been, however, a number of important modifications and new legislation is currently under preparation which will affect important aspects of business operations. Legislation, which is in varying stages of preparation, includes a law concerning foreign investment, new mineral laws, a new law for regulating industry, new legislation concerning land tenure, additional labor legislation, and revised patent legislation. Although some of these have been under preparation for several years and are known to have been completed in draft, it appears unlikely that any will be finalized until after the newly elected Indonesian Government takes office in 1956.

The Provisional Constitution sets forth fundamental human rights and freedoms, many of which apply to all persons within the country whether or not they are citizens. Article 8 states that all persons within the territory are entitled to equal protection of person and property.

LIMITATIONS ON FOREIGN OPERATIONS [1]

There are no constitutional provisions, domestic regulations, or treaties which affect the rights of United States nationals other than provisions in the agrarian and mining laws which limited the issuance of long-term leases on land and licenses for mining exploration and exploitation to Netherlands subjects, to residents of Indonesia or the Netherlands, or to corporate bodies resident in Indonesia or the Netherlands.[2] In other words, nonresident United States nationals or corporations cannot obtain such leases or licenses. With respect to other types of business, no legal limitations exist insofar as nationality is concerned. At present American interests operating industrial enterprises in Indonesia do so through companies incorporated in prewar years in the Netherlands or in the Netherlands Indies.

Agricultural Leases and Rentals

A basic law of the Netherlands Indies granted the natives the right to own land under their own "adat" law, a locally diversified, unwritten law which prevented Indonesian titles to land holdings from being alienated to non-Indonesians, including non-Indonesian orientals as well as Westerners. Under the Agrarian Law of 1870 all land in Indonesia (except the small amount already owned according to Western law) was declared Government domain, with the express condition that all adat law titles of Indonesians to land would be respected.

The Agrarian Law also provided for long-term leases or concessions on so-called "undeveloped land," which was land that had not yet been cultivated and consequently was not subject to any ownership claim by Indonesians. Over a period of years the Government leased such land, largely to foreign-owned companies,[3] on leases up to a maximum term of 75 years. It is estimated that 2 million acres are now held in such concessions. Some of these leases have expired and are being continued only on a temporary basis. Others will expire within the next few years. The Indonesian Government's policy regarding the future of these holdings has not been clearly decided.[4] New leases have not been issued in recent years.

In addition to long lease, agricultural land can be rented by foreigners from the present holders. However, a number of legal provisions safeguard interests of the holders.

Other restrictions on the leasing and renting of land for agricultural purposes are contained in various laws and regulations. For example, the

[1] Various restrictions and controls affecting business operations are discussed elsewhere in this book. Important among them are the restrictions imposed by exchange and trade controls and those relating to taxes.

[2] Residence in the Netherlands cannot be considered a factor in the future. New regulations, now under preparation, can be expected to limit such residence to Indonesia.

[3] Some agricultural leases to foreigners antedate the Agrarian Law, but the largest number were under it and later implementing ordinances and regulations. The most important of these was the Land Lease Ordinance of 1918.

[4] A policy statement of the Indonesian Government of December 8, 1955, announced that the lease period would be 40 years, but no regulation has been issued implementing this policy.

Agrarian Law prohibits poppy culture on long lease. The Factory Ordinance (1899) places restrictions on estates producing sugar and indigo, requiring among other things that a license be obtained for the renting of land or the purchase of locally grown output. This same ordinance also placed restrictions on estate production of cassava.[5]

Mining Concessions [6]

Mining in Indonesia is controlled by the Indonesian Mining Law of 1899, its various amendments, and the supplemental Mining Ordinance of 1930.

Article 1 of the basic law lists the minerals to which the law applies, of which the most important are precious stones, precious metals, tin, coal, and mineral oils. Minerals not specified, such as chalk and limestone, are subject only to the Civil Code, which implies that persons entitled to the surface are also entitled to the minerals. For all minerals covered by the Mining Law, however, subsurface rights belong to the Government but may be leased to foreign investors under contracts approved by the Government.

The Mining Law distinguishes between exploration and exploitation. A license issued by the Government for exploration entitles the holder to exclusive exploration rights in a specified area for a period of 3 years, with the privileges of 2 extensions of 1 year each. The exploration fee is based on a rental charge for the exploration area plus a percentage of the gross value of the minerals produced.

If minerals are found in exploitable quantities the license holder has a right to claim the concession. However, this must be done before the exploration license expires. A concession is granted for varying periods up to a maximum one of 75 years. For this concession a rental fee is charged (on the basis of area) and a percentage of the gross value of the minerals produced is paid to the Government.

Pursuant to article 5a of the Mining Law, the Government is also entitled to explore for minerals, and all deposits of coal and mineral oils are reserved for the Government. This implies that a licensed explorer finding coal or oil cannot claim an exploitation concession.

The Government may, however, contract with private companies for the exploration and exploitation of mines and oilfields in which the Government shares in the profit. This has been done in the case of the American and Dutch oil companies operating in Indonesia which have so-called "5a contracts" with the Government for the exploitation of petroleum fields. Development contracts under this article are held for a maximum of 40 years; this is the term under which the foreign oil companies are operating at present.

Since some aspects of the Mining Law are not considered acceptable to the Indonesian Government, preparation of new laws was undertaken several years ago. Until passage of the new laws,[7] the granting of concessions to foreign companies is likely to be limited to special instances.

Mining concessions are granted by and registered with the Department of Mining (Djawatan Pertambangan) of the Ministry of Economic Affairs.

Industrial Regulations

The Industry Regulations Ordinance of 1934 requires that a Government license be obtained for the establishment of new industries and the expansion of existing industries designated by Government decrees. According to this ordinance, its purpose is to prevent destructive competition through overexpansion, prevent the establishment of undesirable enterprises, regulate the tempo of developments in certain fields, and protect economically weak groups (native enterprises). The ordinance has been applied to rice milling, rubber remilling, spinning, weaving, knitting, and other textile manufacture, cigarette manufacture, printing, icemaking, and the manufacture of pans, and to dock and warehouse companies.

The establishment of an industrial enterprise or the expansion of an existing plant in these regulated fields must be licensed by the Department of Industry (Djawatan Perindustrian) of the Ministry of Economic Affairs. Application for the establishment or extension of an enterprise should be submitted through the regional offices of this department, but the final authority for granting the license is in the hands of the central office in Djakarta.

Under an administrative procedure, instituted several years ago, firms established in nonregulated industries, i. e., in fields other than those named above, are required to have an "identification card," if the company plans to import machinery or raw materials. This card, which may be obtained upon application from the central office of the Department of Industry or from its various regional offices, is used in connection with applications requesting foreign exchange for the import of materials in support of the enterprise.

All firms employing more than 50 workers or having a power capacity of 10 hp. or more are required to provide certain data concerning labor conditions, output, raw materials consumed, and type of power. Although this "registration" is primarily for the purpose of providing statistical data for use in compilations of the Central Bureau

[5] The restrictions placed on certain crops by the Factory Ordinance appear primarily to have been for the purpose of preventing too great an expansion to the detriment of Indonesian native agriculture.

[6] Further details concerning mining legislation are provided in appendix E.

[7] Reportedly, two new laws are being prepared—one dealing with hydrocarbons and the other with other mineral products.

of Statistics, it is carried out by the Department of Industry through its central and regional offices. Administratively, the Department of Industry has also used this registration procedure to some degree to control industry.

As for agriculture and mining, consideration is being given to changing the present laws and regulations relating to the establishment of manufacturing enterprises. A new law is known to have been drafted as of 1955.

Fields Closed to Foreigners

Before the transfer of sovereignty the Netherlands Indies Government maintained a monopoly on salt, opium, pawnshops, and the post, telegraph, and telephone services. It also operated or controlled certain railroads, harbors, dredging services, hydroelectric plants, coal and tin mines, forests, and agricultural estates. It granted what were in effect exclusive rights to interisland air and shipping services to Dutch companies. These activities and monopolies have been continued by the Republic of Indonesia, with certain changes and additions.

Today, the Government owns and operates the Bangka tin mines, and those of Billiton and Singkep are under partial public ownership and management. The petroleum properties in North Sumatra of Bataafsche Petroleum Maatschappij (BPM) have been placed under Government control. Most of the railways and the interisland airline are nationalized, and a Government-owned interisland shipping company has been established. Waterworks and electrical works are under partial Government ownership and management.

A number of statements by Indonesian officials in the past few years indicate plans to further nationalize public utilities, including transportation facilities.[8] Although the Government is operating in other economic fields—particularly mining and manufacturing—no intention to nationalize such fields has been expressed. Some Indonesian leaders have pointed out that Government management in some of its present operations has been uneconomic and they have questioned the wisdom of future expansion of Government operations.

Where nationalization has occurred the Indonesian Government has given compensation. The provisions of the prewar Expropriation Ordinance are still applicable [9] in the nationalization of an industry in which foreign capital is invested. Moreover, a recent Government policy announcement states that privately owned enterprises, either national or foreign, which are not in the field of public utilities or considered as social enterprises will not be nationalized except by agreement with the owners.[10]

In addition to the sectors indicated above which are to be Government operated, the Indonesian Government considers certain spheres of economic activities as properly Indonesian and has accordingly issued regulations limiting these fields to nationals. They have included trade activities, harbor and warehousing services, and small-scale industries. In 1953–54 virtually all import trade was restricted to Indonesians; in late 1955, however, procedures were modified to permit foreign firms to operate. A decree issued in early 1955 requires that most harbor services, including lighterage, stevedorage, and wharfage, be performed by Indonesian companies.[11] The general policy to reserve small-scale industries—which have traditionally been operated by Indonesians—for nationals has been indicated in various Government statements, including the recent policy statement on foreign investment.

Participation of Nationals

There is no legal requirement for national participation in business enterprises operating in Indonesia, and many companies that are fully foreign owned carry on business there. In the period since independence, however, the Indonesian Government has indicated its desire for greater national participation in many fields of industry, including a majority ownership in some fields. The most recent pronouncement, included in the policy statement on foreign investment of December 1955, states that Indonesia will move toward giving greater control of "basic industries" to Indonesians by limiting foreign investment to 49 percent, although some of these industries will be excepted for an undesignated period.

Enterprises in fields other than those reserved for the Government and nationals and those considered "basic" will, according to this most recent statement, be open to foreign as well as national investment, provided they are in line with the "Government's economic policy." Regulations have not yet been issued to implement this policy statement.

BUSINESS ORGANIZATION

The following types of business organizations are found in Indonesia:

1. Limited-liability company. This type of

[8] The latest such statement was that included in the announcement of Government policy on foreign investment made on December 8, 1955. According to this announcement "social enterprises" and public utilities, such as railways, telecommunications, interisland navigation, domestic air service, electricity, irrigation and water supply, munitions plants, and nuclear energy, must be Government owned.

[9] This is in accordance with article 133 of the Provisional Constitution, by which prewar regulations were declared in force until the establishment of new provisions, and article 27, which states that "expropriation of any property or right for the general benefit cannot take place except with indemnification and in accordance with regulations as established by law."

[10] Policy statement of December 8, 1955, on foreign investments.

[11] These are services which have long been carried out by Dutch companies.

concern is most commonly used, particularly for large enterprises.

2. Full partnership, in which every partner is fully responsible. This type of firm is also in common use.

3. Limited partnership, in which one or more partners are silent and are responsible only up to the amounts they contribute as their share in the capital. Full responsibility falls on the managing partners.

4. Cooperative society. This type of association is common among the farmers and other small entrepreneurs. It has been used only occasionally by foreign concerns.

5. Sole proprietorship or individual enterprise.

6. Branch of a foreign business firm.

At present, companies incorporated outside Indonesia may carry on business without the formality of registration or without having an establishment in the country.[12] However, since nonregistered companies may be subject to assessment of taxes on the income of the parent company abroad and cannot acquire or sell property without authorization from the foreign exchange authorities, most foreign firms consider it advantageous to organize a subsidiary Indonesian company under the provisions of the Commercial Code. The limited-liability company is generally considered the most satisfactory for foreign-owned enterprises and is used by the largest number of direct investors.

Limited-Liability Company

A limited-liability company must be registered in accordance with provisions of the Commercial Code (see articles 36 through 56 of the code, given in appendix D). Its articles of incorporation must be submitted to the Minister of Justice for approval and, after approval, the complete document must be registered at the Records Office of the Council of Justice within the territory where the company is to be located and also published in the official journal.

A limited-liability company can be set up in as simple or as complex a manner as conditions warrant. The capital of the company is divided into shares in the name of a person or to bearer. Shareholders are not responsible beyond the full amount of the shares. No shares to bearer may be issued until the full amount is paid to the company. Unlike their American counterparts, Indonesian corporations do not have directors and officers but, similar to Dutch corporations, have only one organ which consists of one or more managers who exercise all the functions normally divided in the United States between directors and officers.

The limited-liability company must be contracted for a definite period, but extensions may be made after expiration of the period. The articles of incorporation may not specify a fixed rate of interest; and dividends are paid out of income after deduction of all expenses. The company cannot commence to function until at least 10 percent of the subscribed capital has been paid in. Control, as well as approval, of management rests with the shareholders. Managers must submit, at least once a year, a profit-and-loss statement, which may be presented at the general meeting or sent direct to each shareholder.

There are no restrictions as to the citizenship of stockholders of an Indonesian company. However, a nonresident cannot act as a founder without the consent of the foreign exchange authorities. Two methods of incorporation are, therefore, possible: (1) With consent of the foreign exchange authorities, and using capital imported from abroad or available locally; and (2) Indonesian resident participation in incorporation.

No legal limits apply on foreign capital participation. However, the Indonesian Government is more likely to give encouragement to prospective new investors who accept Indonesian capital participation as well as participation of Indonesian personnel.[13]

Other Forms of Business Organization

Partnership.—A partnership must be legalized by notarial deed, and an announcement of its formation, together with salient clauses of the contract, must be published in the official journal. A similar procedure is required for the establishment of limited partnerships. Articles 15–35 of the Commercial Code are concerned with partnerships (see appendix D).

Cooperative society.—A cooperative society is formed in a manner similar to that for limited-liability companies. Few foreign enterprises have used this form of business, and it is believed that no businesses involving United States capital have been so organized.

Sole proprietorship.—Indonesia does not maintain a complete register of all types of commercial operations. No formality is required, therefore, for the establishment of a sole proprietorship. The owner is only responsible under law as a citizen or as an alien resident.

Branch.—Similarly, no formality is required for the opening of a branch office by a foreign firm. All that is necessary is the procurement of office or factory space and the appointment of a person to manage the branch. The manager, who is an

[12] According to the policy on foreign investment announced in December 1955, however, companies operating wholly or largely in Indonesia must be established in Indonesia and incorporated under Indonesian laws.

[13] See preceding section, which indicates policy statements on this matter.

employee of the foreign company, must, however, possess valid powers of attorney.

A branch is generally considered to be less satisfactory than a subsidiary corporation for carrying on business in Indonesia, where both types of operation are feasible. As a foreign concern, an Indonesian branch cannot buy or sell property unless licensed in each instance by the foreign exchange authorities, a procedure which may make business cumbersome.

A branch also has disadvantages taxwise. The income derived from Indonesian sources through a branch of a foreign company is subject to Indonesian income tax. The Indonesian tax authorities may not be able to ascertain the tax liability without receiving a full report of the company's activities and may therefore require such a report in order properly to allocate profits and expenses to the Indonesian portion of the operation.

Under United States law the income earned abroad by a branch is subject to taxation when earned, whereas income earned by a foreign subsidiary is generally not taxable until distributed. Moreover, it can be expected that the Indonesian Government will generally regard a branch, which is part of a foreign corporation, less favorably than a subsidiary, which is an Indonesian corporation. In deciding the form in which business should be carried out in Indonesia, full consideration should be taken of all the circumstances of the particular business.[14]

Agency.—Indonesian law recognizes two forms of agency, depending on whether or not the agent discloses the name of his principal. If he does not disclose the name, he is called a commissionaire and his legal status is covered by articles 76–85a of the Commercial Code (see appendix D). The principal acquires no direct claim against the Indonesian customer or supplier, nor is he liable to him.

If the agent discloses his principal, direct legal relations are created between the two. This relationship is regulated by articles 1792–1819 of the Civil Code.

A partnership or a corporation, as well as an individual, may be appointed as agent.

Fees in Connection With Establishment

For the establishment of limited-liability companies and cooperative societies a stamp duty of 2½ percent is levied on the capital paid in at the time of establishment and a similar rate is levied when the remaining amount of capital is paid up. In addition, there is a notarial fee charged on a sliding scale; this latter fee also applies to partnerships and limited partnerships.

In addition to the stamp duty and the notarial fee, certain other small charges must be paid, for example, the costs of publication in the official journal and the cost of providing copies of deeds.

Bookkeeping and Reporting Requirements

The accounting provisions contained in articles 6–12 of the Commercial Code (see appendix D) simply require everyone operating a business to maintain records which will indicate his rights and obligations at all times. The financial records must be retained for 30 years, while correspondence and telegrams must be saved for 10 years.

According to a regulation which became effective in August 1952, amending the company tax ordinance of 1925, "bookkeeping (for tax purposes) must be maintained in the Indonesian language with the use of Latin characters and the customary numerals (Arabic numerals)." Prior to that date books could be kept in Dutch or English.

To facilitate the Government's carrying out its labor policy, regulations were issued in 1953 requiring all productive enterprises paying wages to report certain information to offices of the Ministry of Labor.[15]

PATENTS, TRADEMARKS, COPYRIGHTS

The basic regulations covering industrial property in Indonesia are still based largely on prewar Dutch laws. A new law has been drafted for patents, however, and in anticipation of its ratification the Ministry of Justice issued provisional regulations in August 1953 which made some changes in the prewar laws.

Patents

New patents must be registered in Djakarta with the Office of Industrial Property, Ministry of Justice. Patents which were issued in the Netherlands prior to Indonesia's sovereignty are, however, still valid since these private legal rights were assumed by Indonesia.

Under the Dutch law a patent right was granted to the holder of the registered patent. Violations of these rights are prosecuted in the courts of the Republic of Indonesia according to pertinent Dutch patent laws.[16] The provisions of the international Paris Convention of 1883 are applicable to Indonesia.

[14] For advice on this as well as other matters concerning operations in Indonesia businessmen will wish to consult counsel. A list of lawyers practicing in Indonesia (dated October 1955) is available for $2 from the Office of Intelligence and Services, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D. C., or from the Department's Field Offices.

[15] Statute No. 23 of 1953 on the "Obligation to Report Enterprises" and Government Regulation No. 41 of 1953.

[16] These patent laws are included in *De Wetbocken Wetten en Verordeningen Benevans de Voorlopige Groundwet van de Republiek Indonesie,* by W. A. Engelbrecht, Leiden, 1954.

Applications for patents must be in the Indonesian language or in the language of the applicant. In the latter case an Indonesian translation must be submitted within 6 months.

Appendix H includes a translation of the 1953 provisional regulation of the Ministry of Justice for the application of patents. It also contains a newspaper summary of the provisions of the proposed patent law, which was approved by the Indonesian Cabinet in January 1955 but has not yet been acted upon by the Parliament.

Trademarks

The Dutch laws on trademarks which were effective prior to the transfer of sovereignty are still valid.[17] Indonesia has also accepted responsibilities under three international conventions in the matter of trademark protection to which the Netherlands was a signatory: The Paris Convention of 1934; The Hague Convention of 1925 (revised in London in 1934); and the Neuchatel Convention of 1947. Indonesia has not been bound to the international Agreement of Madrid on Trademarks since 1936 and therefore only the internationally registered trademarks up to that year are considered valid.

The right to use a trademark is granted to the person or firm which has first-user rights. Registration is now with the Office of Industrial Property of the Ministry of Justice in Djakarta, although pre-1949 trademarks which were registered in the Netherlands are still valid.

Copyrights

The legislation in force regarding copyrights in Indonesia includes the Copyright Law of 1912 and the international Berne Convention of 1931. The basic law [17] provides copyright protection to the works of foreign authors—for example, an American citizen—which are for the first time published in Indonesia. Under the Berne Convention the works of foreign authors which are published for the first time in another country included in the convention are protected.

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[17] Engelbrecht's volume mentioned in footnote 16 also includes a discussion of trademark as well as copyright laws.

Statistical Data

Table I.—Area and Population of Netherlands Indies, by Divisions, 1930 [1]

Division	Area (square miles)	Population as of October 1930
Java and Madura	51,032	41,718,364
Sumatra, total	164,148	7,677,826
Sumatra, West Coast	19,219	1,910,298
Taponuli	15,088	1,042,583
Sumatra, East Coast	36,519	1,693,200
Benkulen	10,135	323,123
Lampongs	11,113	361,563
Palemhang	33,342	1,098,725
Djambi	17,345	245,272
Atjeh	21,387	1,003,062
Riouw-Lingga Archipelago	12,235	298,225
Bangka	4,611	205,363
Billiton	1,866	73,429
Borneo (Kalimantan), total	208,286	2,168,661
West Borneo	56,664	802,447
Soutb and East Borneo	151,622	1,366,214
Celebes (Sulawesi), total	72,986	4,231,906
Celebes	38,786	3,093,251
Manado	34,200	1,138,655
Molucca Islands,[2] total	191,681	893,400
Amboina	75,820	400,642
Ternate	115,861	492,758
Timor Archipelago	24,450	1,657,376
Bali and Lombok	3,973	1,802,683
Grand total	735,268	60,727,233

[1] The last full census was in 1930.
[2] Includes Netherlands New Guinea (West Irian).

Source: Netherlands Indies Census of 1930.

Table II.—Population, by Administrative Divisions, 1952 [1]

Province	Population	Area (square kilometers)	Density per square kilometer
North Sumatra	4,798,750	141,761	34
Central Sumatra	3,714,137	173,682	22
Soutb Sumatra	3,092,602	158,163	20
West Java	16,277,603	46,113	353
Central Java	17,200,014	38,426	448
East Java	17,749,376	43,313	410
Kalimantan	3,586,309	539,460	7
Sulawesi	5,872,733	189,035	31
Lesser Sunda Islands	5,128,483	73,615	70
Moluccas	683,416	86,862	8

[1] These figures, which are presumably official or semiofficial, are lower than estimates given in chapter III, which allow for increases since 1952.

Source: *Ekonomi dan Keuangan Indonesia*, September 1955. The figures are included as an appendix to an article by S. K. Dey, head of tbe United Nations Technical Assistance Administration in Indonesia.

Table III.—Population of Principal Indonesian Cities, 1930 and 1953

City	1930 census	Latest estimate (1953, except as indicated)
Java:		
Djakarta	533,015	[1] 2,500,000
Surabaja	341,675	[2] 926,000
Jogjakarta	136,649	500,000
Semarang	217,716	335,000
Bandung	166,815	[3] 724,000
Surakarta (Solo)	165,484	340,000
Malang	86,646	[4] 300,000
Bogor	65,421	120,000
Tjeribon	n. a.	141,000
Sumatra:		
Medan	76,584	[5] 338,000
Palembang	108,145	238,000
Kalimantan:		
Bandjarmasin	65,698	150,000
Pontianak	45,169	120,000
Sulawesi:		
Makasar	84,855	265,000

n. a.—Data arc not available.
[1] 1952 estimate. Some estimates place the Djakarta metropolitan area at about 3.5 million.
[2] Some estimates place Surabaja as over 1 million.
[3] Other estimates for Bandung are considerably lower—about 300,000 to 350,000.
[4] Otber recent estimates for Malang range from 265,000 to 400,000.
[5] 1954 estimate. Otber estimates place Medan at about 200,000 as of 1953.

Sources: Figures for 1930 are from tbe official census. Estimates for recent years are from various sources, official, semiofficial, and private. Some of these are based on the 1930 data, with a percentage increase applied across the board. Many of the estimates, tberefore, are suhject to a very wide margin of error.

Table IV.—Production of Large-Scale [1] *Indonesian Industries, 1952–53*

Type		1952	1953
Canned foods:			
Vegetables	metric tons	28.7	158.8
Meat	do	124.7	417.8
Fish	do	4.6	5.0
Jam	do	606.3	360.3
Bottled foods:			
Vegetahles	do	7.7	11.4
Jams	do	233.8	66.7
Chocolate products:			
Chocolate powder	do	296.9	384.2
Chocolate butter	do	4.5	12.9
Miscellaneous	do	1,334.2	1,389.1
Vegetable oils:			
Margarine	do	8,574.0	10,072.0
Frying oil	do	4,485.0	5,954.0
Alcohol:			
Spirits (denatured)	1,000 liters	2,248.0	2,608.0
Pure alcohol	do	1,194.0	2,149.0
Beverages:			
Beer	million liters	19.3	23.6
Lemonade	million bottles	43.4	n. a.
Soda water	do	6.9	n. a.
Syrup	do	.8	n. a.
Tobacco products:			
Cigarettes (conventional)	millions	12,000.0	14,000.0
Others (kreteks, etc.)	do	651.0	640.0
Pipe tobacco, etc	tons	79.0	235.0

See footnote at end of table.

Table IV.—Production of Large-Scale[1] Indonesian Industries, 1952–53—Continued

Type	1952	1953
Woven cloths:		
Sarongs .... millions	7.1	n. a.
Unbleached cloths .... million meters	17.5	n. a.
Tussor and tropical .... do	3.8	n. a.
Shirting, poplin, etc .... do	3.4	n. a.
Bath towels .... do	3.2	n. a.
Knitted clothes:		
Singlets and polo shirts .... 1,000 dozen	344.2	545.0
Swimming trunks .... dozen	2,380.0	100.0
Leather and rubberware:		
Shoes .... million pairs	3.5	5.0
Sandals .... do	2.2	2.3
Cases and bags .... thousands	59.8	48.0
Umbrellas .... do	n. a.	35.0
Paper:		
Writing and printing .... metric tons	4,413.0	4,437.0
Packing .... do	179.0	120.0
Cigarette .... do	162.0	215.0
Other .... do	981.0	1,229.0
Cardboard .... do	388.0	907.0
Tires:		
Passenger and truck .... thousands	271.7	296.7
Motorcycle .... do	22.1	12.4
Bicycle .... do	2,577.7	3,045.1
Other .... do	5.4	4.1
Tubes:		
Passenger and truck .... do	295.7	277.0
Motorcycle .... do	32.6	34.6
Bicycle .... do	2,060.4	2,815.0
Other .... do	.4	11.8
Stationery supplies:		
Writing ink (pen) .... metric tons	78.0	94.0
Writing ink (fountain pen) .... do	32.0	61.0
Printing ink .... do	22.0	56.0
Glue .... do	85.0	77.0
Chalk .... do	165.0	81.0
Ink ribbon .... thousands	556.0	364.0
Carbon paper .... million sheets	48.0	44.0
Matches .... million boxes	34.0	42.0
Toothpaste .... metric tons	720.0	932.0
Glassware:		
Beer bottles .... millions	2.0	2.4
Soft-drink bottles .... do	1.3	2.0
Medical bottles .... do	10.7	15.7
Drinking glasses .... do	.04	.2
Flasks .... do	2.0	2.6
Cement .... 1,000 metric tons	138.0	149.0
Tinware:		
Gasoline cans .... metric tons	28.0	75.0
Margarine and frying oilcans .... do	1,696.0	1,717.0
Paint cans .... do	515.0	619.0
Tableware:		
Enamel washbasins .... thousands	539.0	630.0
Enamel plates .... do	627.0	444.0
Aluminum plates .... do	69.0	95.0
Electrical appliances:		
Storage batteries .... do	28.0	40.0
Bulbs .... do	5,257.0	5,951.0
Radio sets .... do	46.0	61.0
Dry batteries .... millions	14.9	18.0
Vehicles (assembly):		
Passenger cars .... thousands	1.5	.9
Trucks .... do	3.0	3.3
Cycles .... do	18.7	32.4

n. a.—Data are not available.

[1] Includes production of plants hiring over 50 workers or using 5 horsepower or more. Some data here vary from data in other sources.

Source: National Planning Bureau of the Indonesian Government.

Table V.—Indonesian Exports of Principal Commodities, 1953–54

Commodity	Quantity (metric tons, except as indicated)		Value (thousands of dollars)	
	1953	1954	1953	1954
Tapioca roots, dried, coarsely ground	19,099	140,314	881	5,384
Sugar, factory-refined	97,369	212,829	10,216	22,372
Coffee, shelled, green	33,575	38,232	30,871	39,943
Tea	33,003	44,973	23,734	39,800
Pepper	7,605	12,927	16,202	12,822
Copra oilcakes	114,379	141,241	7,333	6,702
Tobacco, leaf	14,577	19,494	31,386	32,118
Copra	311,029	296,855	57,773	50,946
Palm kernels	43,403	42,595	6,119	4,904
Palm oil	135,962	140,106	28,559	25,539
Rubber, crude, in sheets, slabs, and balls	712,134	749,754	273,716	265,945
Agave fiber	24,293	23,347	5,074	4,259
Petroleum, crude .... 1,000 liters	2,467,357	2,725,080	13,904	32,357
Gasoline .... do	2,731,429	2,457,157	78,822	69,762

Table V.—Indonesian Exports of Principal Commodities, 1953–54—Continued

Commodity	Quantity (metric tons, except as indicated)		Value (thousands of dollars)	
	1953	1954	1953	1954
Kerosene .... 1,000 liters	857,781	988,422	20,452	23,915
Diesel, solar, and similar motor oils .... 1,000 liters	2,624,761	2,417,569	46,143	44,205
Fuel oils .... do	2,782,624	2,885,719	34,654	40,943
Paraffin	41,178	76,486	5,372	10,365
Tin ore, slag, and ash	47,449	48,254	80,588	59,457
Scrap iron	156,341	16,776	6,992	606
Betel nuts	20,219	24,064	2,767	2,953
Rattan	29,632	30,013	4,492	3,980
Kapok, ginned	5,713	4,813	4,732	4,099
Other merchandise	....	....	49,463	52,688
Total	....	....	840,245	856,064

Source: Official Indonesian trade data issued by the Central Bureau of Statistics.

Note.—Value figures have been converted at the official rate of exchange (1 rupiah equals US$0.08772).

Table VI.—Indonesian Imports of Principal Commodities, 1953–54

Commodity	Quantity (metric tons, except as indicated)		Value (thousands of dollars)	
	1953	1954	1953	1954
Milk, cream, and yoghurt, fresh, canned, or prepared	18,742	18,821	7,796	6,605
Fish and fish preparations	39,690	39,084	9,413	8,310
Rice, not in the husk	371,500	258,762	80,372	48,947
Wheat flour	137,847	108,397	18,779	12,302
Cloves and clove stems	3,333	7,722	6,252	8,281
Tobacco, leaf, including stemmed	8,866	6,995	10,522	9,034
Chemical elements and compounds	46,111	42,422	9,608	8,590
Pharmaceutical products and preparations	1,644	1,404	5,447	5,803
Coal-tar dyes	2,567	2,532	4,583	5,312
Fertilizers	100,936	104,528	7,456	6,991
Chemical products and preparations, other	29,768	23,889	16,548	12,271
Paper, paperboard, and manufactures	78,096	73,554	18,974	16,879
Cotton, raw and waste	5,348	5,565	4,638	4,845
Weaving yarns wholly of staple fibers	8,287	8,400	11,118	10,083
Cotton weaving yarns	12,959	14,369	18,156	20,485
Fabrics of artificial textile fibers	10,519	4,360	18,387	9,321
Cotton fabrics of standard type	74,040	58,851	136,369	107,614
Clothing and footwear	4,917	3,725	10,170	7,177
Gunny sacks	28,286	24,546	7,094	5,951
Textile fibers, yarns, fabrics, and made-up goods, other	11,836	9,956	19,642	17,439
Petroleum, crude .... 1,000 liters	2,768,966	2,550,145	42,954	38,200
Fuels, lubricants, and related products, other	162,299	131,575	11,120	8,693
Cement	199,352	290,569	6,067	8,059
Glass and glassware	30,189	38,955	5,112	5,623
Iron and steel in bars, including concrete iron	59,652	27,062	8,144	6,996
Iron and steel sheets and plates and hoop iron	90,669	96,525	21,907	20,873
Iron and steel tubes and pipes	29,996	22,659	7,854	5,414
Nonferrous base metals and alloys, unwrought or simply worked	5,834	8,426	4,196	8,552
Base metals, ores, and manufactures, other	83,705	113,111	31,714	24,541
Internal combustion and explosion motors	8,027	4,365	14,178	8,120
Nonelectrical machinery, apparatus, and parts, other	32,269	32,959	39,896	38,144
Telegraph, telephone, radio, and television apparatus	1,639	1,236	7,076	5,338
Electrical machinery, apparatus, and equipment, other	19,970	14,989	16,694	12,813
Electric locomotives .... number	27	5	6,631	293
Railway passenger cars .... do	123	205	1,551	9,205
Motor buses and trucks .... do	4,474	2,930	9,256	5,920
Road motor vehicles, chassis, bodies, and parts, except electric, other	10,943	8,844	14,877	11,174
Cycles, not motorized, and parts, except electric	20,990	19,263	17,844	14,197
Seagoing motorships .... number	30	9	7,408	2,543
Other merchandise	....	....	70,807	62,091
Total	....	....	766,610	629,099

Source: Official Indonesian trade data issued by the Central Bureau of Statistics.

Note.—Value figures have been converted at the official rate of exchange (1 rupiah equals US $0.08772).

Table VII.—Trade of Indonesia With Principal Countries, 1953–54

[In thousands of dollars]

Country	Imports		Exports	
	1953	1954	1953	1954
United States	139, 090	90, 779	172, 197	143, 478
Australia	17, 733	12, 918	19, 480	30, 253
Austria	3, 828	7, 541	37	15
Belgium-Luxembourg	23, 207	13, 602	5, 139	5, 556
British East Africa	6, 031	5, 836	1, 639	33
Burma	44, 421	30, 478	140	629
Curacao	567	(1)	8, 374	700
Czechoslovakia	2, 793	7, 766	160	3, 758
France	6, 721	9, 748	8, 787	8, 533
Germany	50, 368	43, 069	39, 965	39, 582
Hong Kong	54, 883	37, 734	12, 324	39, 970
India	19, 044	14, 119	5, 668	702
Indochina	8, 058	7, 915	11, 270	8, 647
Iraq	10, 496	30, 086	1, 776	865
Italy	9, 374	733	14, 693	15, 184
Japan	127, 135	136, 758	37, 876	50, 100
Malaya	1, 162	848	13, 607	12, 599
Netherlands	89, 792	65, 819	193, 718	165, 132
Norway	2, 513	2, 722	5, 335	2, 193
Penang	44	186	10, 871	20, 609
Philippines	470	243	7, 022	10, 327
Sarawak Brunei	29, 065	2, 097 3, 863	860	(1) 406
Singapore	10, 118	4, 978	180, 781	185, 987
Sweden	11, 661	10, 025	5, 370	5, 119
Switzerland	6, 093	6, 272	32	51
Thailand (Siam)	16, 559	15, 883	7, 339	8, 445
United Kingdom [2]	53, 899	34, 123	17, 410	39, 937
Other countries	19, 644	32, 958	58, 375	57, 254
Total	764, 769	629, 099	840, 245	856, 064

[1] Not reported.
[2] Includes Ireland.

Source: Official Indonesian trade data as issued by the Central Bureau of Statistics.

Note.—Data have been converted at the official rate of exchange (1 rupiah equals US$0.08772).

Table VIII.—Principal Exports of Indonesia to the United States, 1953–54

Commodity	Quantity (metric tons, except as indicated)		Value (thousands of dollars)	
	1953	1954	1953	1954
Coffee, shelled, green	2, 593	790	2, 331	825
Tea	3, 608	4, 293	2, 894	4, 598
Pepper	2, 600	1, 428	5, 804	1, 574
Tobacco, leaf	267	334	2, 651	1, 822
Palm oil	3, 258	8, 670	515	1, 571
Rubber, crude, in sheets, slabs, and balls	281, 516	242, 455	118, 680	90, 443
Agave fiber	8, 546	7, 224	1, 547	1, 001
Manila fiber	2, 110	369	919	117
Petroleum, crude ... 1,000 liters	2, 348, 210	2, 095, 218	12, 924	24, 179
Tin ore, slag, and ash	10, 124	10, 867	17, 516	13, 295
Kapok, ginned	2, 404	1, 540	2, 027	1, 292
Other merchandise	------	------	4, 389	2, 761
Total	------	------	172, 197	143, 478

Source: Official Indonesian trade data issued by the Central Bureau of Statistics.

Note.—Value figures have been converted at the official rate of exchange (1 rupiah equals US$0.08772).

Table IX.—Principal Imports of Indonesia From the United States, 1953–54

Commodity	Quantity (metric tons, except as indicated)		Value (thousands of dollars)	
	1953	1954	1953	1954
Rice, not in the husk	50, 682	(1)	11, 946	(1)
Wheat flour	24, 834	12, 046	3, 248	1, 459
Tobacco, leaf, including stemmed	6, 971	6, 641	9, 541	8, 871
Caustic soda	1, 365	6, 708	117	584
Disinfectants, insecticides, and fungicides containing DDT	1, 380	1, 941	661	1, 166
Pharmaceutical preparations, packaged for retail sale	149	290	1, 332	2, 302
Newsprint	17	3, 104	6	636
Packing paper of old newspapers and of unfinished printed matter	11, 452	15, 432	899	1, 178
Cigarette paper	310	1, 228	210	905
Cotton, raw and waste	4, 568	5, 280	4, 122	4, 623
Fabrics of artificial textile fibers, other than velvets, plushes, and sarongs	278	252	726	823
Cotton fabrics, bleached, dyed, or printed, other than velvets, plushes, and sarongs ... 1,000 meters	80, 402	23, 065	24, 754	9, 778
Coal	14, 243	21, 202	330	442
Lubricating oils ... 1,000 liters	20, 789	17, 824	3, 871	3, 071
Petroleum asphalt	19, 952	11, 606	1, 124	563
Iron and steel in bars, including concrete iron	8, 128	1, 057	1, 224	165
Iron and steel wire, bare or coated, not				250
insulated	417	626	194	250
Iron and steel sheets and plates except corrugated or perforated, but including galvanized roofing sheets	15, 203	9, 646	3, 277	1, 799
Tubes, pipes, and fittings of iron, cast iron, and steel	5, 645	1, 950	1, 505	582
Rails and joints for railways, including portable tracks and level crossings	1, 635	18, 414	241	2, 712
Tools, except agricultural	283	115	825	343
Other base metals, including ores and manufactures	3, 337	963	2, 318	960
Internal combustion and explosion motors, except for aircraft ... number	3, 566	1, 128	5, 771	3, 155
Agricultural machinery	477	209	415	199
Office machinery	100	87	638	610
Refrigerators and other cooling and air-conditioning devices	114	112	177	187
Pumps and other apparatus for the elevation and transfusion of liquids	537	333	857	766
Hoisting, lifting, transporting, excavating, and dredging machinery	1, 518	308	1, 825	517
Machinery and apparatus for printing and the graphic arts	144	37	554	199
Machinery and apparatus for working hard materials, mechanically driven	883	262	2, 378	749
Ventilators, compressors, exhausters, air pumps, and similar machines, n. e. s., including spraying appliances	268	286	511	557
Mining machinery and apparatus, unspecified	606	429	820	884
Machinery and apparatus for industrial and commercial plants, unspecified	422	379	841	933
Ball, roller, and similar bearings and parts	117	72	481	309
Electric dynamos, motors, and rotary converters, n. e. s. ... number	1, 428	1, 609	776	166
Electric batteries and accumulators	318	182	239	237
Telegraph, telephone, radio, and television apparatus	213	224	2, 196	2, 256
Electrical appliances for motor vehicles, cycles, and explosion motors	235	138	444	242
Electric locomotives for railway and tramway ... number	26	1	6, 523	251
Tractors, other than steam tractors ... do	225	79	1, 843	515
Motorcars ... do	740	1, 234	1, 182	1, 953
Motorbuses and trucks ... do	3, 261	2, 169	6, 074	3, 890
Chassis, other than for motorcars, diesel trucks, and similar trucks using heavy oils ... number	516	461	858	614
Parts of automobiles, trucks, buses, and tractors, except bodies	2, 637	1, 336	3, 526	1, 920
Pine resin	2, 379	6, 911	487	1, 414
Scientific, medical, and optical instruments and apparatus	100	97	852	803
Films, plates, and paper for photography	32	39	168	224
Motion-picture films	28	31	374	360
Dredges, floating drydocks, elevators, sand pump dredges, floating gins, and similar floating engines	1, 448	(1)	2, 468	(1)
Other merchandise	------	------	23, 341	23, 613
Total	------	------	139, 090	90, 735

[1] Not reported.

Source: Official Indonesian trade data issued by the Central Bureau of Statistics.

U. S. Firms With Enterprises in Indonesia[1]

N. V. Caltex Pacific Petroleum Maatschappij (Caltex Pacific Oil Co.), 52 Kebon Sirih, Djakarta, Java. Exploration, development, and production of petroleum.
Parent company: Standard Oil Co. of California, San Francisco, Calif., and the Texas Co., New York, N. Y.

Goodyear Nabara Landbouw Mij, N. V., Dolok Merangir. Post Office: Serbalawan, Sumatra East Coast. Operation of rubber estates and factory.
Parent company: Goodyear Tire and Rubber Co., Akron, Ohio.

Goodyear Tire and Rubber Co., Ltd., Djalan Kebon Pedes, Bogor, Java. Manufacture of tires, tubes, and repair materials.
Parent company: Goodyear Tire and Rubber Co., Akron, Ohio.

Hawaiian Sumatra Plantations, Ltd., Kwala Gunung Estate. Post Office: Lima Puluh, Sumatra East Coast. Rubber plantation.
Parent company: Hawaiian Sumatra Plantations, Ltd.
Agent: Bishop Trust Co., Honolulu, Hawaii.

N. V. Hollandsch-Amerikaansche Plantage Mij. (HAPM), Kisaran, Sumatra East Coast. Rubber plantation. Production of latex and dry rubber.
Parent company: United States Rubber Co., Plantation Division, New York, N. Y.

Intercontinental Rubber Company, Inc., Huta Padang Estate. Post Office: Kisaran, Asahan, Sumatra. Rubber plantation.
Parent company: Intercontinental Rubber Co., Inc., New York, N. Y.

National Carbon Company (Java), Ltd., Pendjaringan 53, Djakarta, Java. Manufacture of batteries.
Parent company: Union Carbide and Carbon Corp., New York, N. Y.

N. V. Procter & Gamble's Fabrieken, Djalan Grisik 1–3–5. Post Office Box 130, Surabaja, Java. Factory producing margarine and cooking oil.
Parent company: Procter and Gamble Co., Cincinnati, Ohio.

N. V. Standard-Vacuum Petroleum Maatschappij, Medan Merdeke Selatan 18, Djakarta, Java, and Sungei Gerong, Palembang, Sumatra. Production and refining of oil.
Parent company: Standard-Vacuum Oil Co., New York, N. Y.

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[1] In addition to the firms listed here a number of American companies operate in the fields of sales, distribution, and servicing.

Commercial and Industrial Associations

The following list of commercial and industrial associations in Indonesia was compiled in early 1955. It is believed to include all the major associations as of that time, but may not be complete with respect to the numerous local organizations.

Name, in Indonesian and English	Address
Dewan Ekonomi Indonesia Pusat (DEIP)[1] Indonesian Chamher of Commerce.	Djl. Modjopahit 2, Djakarta.
Gabungan Pembelian Importir Indonesia (GAPINDO)[2]. Indonesian Importers Purchasing Assn.	Kali Besar Timur 5-6, Djakarta.
Persatuan Pedagang Gula Indonesia (PPGI). Indonesian Sugar Traders Assn.	Djl. Modjopahit 2, Djakarta.
Kordinasi Pelajaran Indonesia (KORPI). Indonesian Navigation Coordination Board.	Djl. Segara III No.7, Djakarta.
Persatuan Pedagang Menengab Indonesia (PPMI). Indonesian Small Businessmen's Assn.	Pos Utara No. 41, Djakarta.
Persatuan Saudagar Beras Indonesia (PERSABI). Indonesian Rice Merchants Assn.	Gedong Pandjang 28, Djakarta
Persatuan Warung Beras Indonesia (PERWABI). Indonesian Rice Sbops Assn.	Djl. Pintu Aer 47, Djakarta.
Gabungan Pedagang Beras Indonesia (GPBI). Indonesian Rice Traders Combine.	Djl. Asemka 28, Djakarta.
Ikatan Importir Nasional Indonesia (IKINI). Indonesian National Importers Assn.	Menteng 72 Pav. Djakarta.
Persatuan Saudagar Indonesia (PERSSI). Indonesian Merchants Assn.	Kali Besar Barat 27, Djakarta.
Organisasi Pengangkutan Nasional Indonesia (ORPENI). Indonesian National Transportation Organization.	Djl. Modjopahit 2, Djakarta.
Ikatan Pemasukan Barang Technik (IPBT). Association of Technical Articles Importers.	Djl. Modjopahit 2, Djakarta.
Gabungan Koperasi Batik Indonesia (GKBI). Indonesian Batik Cooperatives Assn.	Djl. Pinang Sia II No. 9, Djakarta.
Gabungan Anemer Arsitek Indonesia (GAAI). Indonesian Building Contractors and Arcbitects Combine.	Djl. Surabaja 26, Djakarta.
Gabungan Ekonomi Pedjuang Seluruh Indonesia (GEPSI). All-Indonesia Economic Fighters Union.	Djl. Kebon Sirih 27, Djakarta.
Gabungan Pedagang Rokok Nasional Indonesia (GAPERON). Indonesian National Cigarette Traders Assn.	Djl. Asemka 26, Djakarta.
Badan Kordinasi Usaha Nasional (BAKUNA). National Enterprises Coordination Committee.	Djl. Kramat V No. 6, Djakarta.
Gabungan Toko Indonesia (GATTI). Indonesian Sbops Assn.	Pasar Senen 72, Djarkata.
Ikatan Exportir Nasional Indonesia (IKENI). Indonesian National Exporters Assn.	Pasar Pisang 30, Djakarta.
Madjelis Industri.[3] Industrial Board	Djl. Modjopabit 2, Djakarta.
Gabungan Importir Indonesia (GABIM). Indonesian Importers Combine.	Djl. Pintu Air 46, Djakarta.
Gabungan Impor Ekspor Bali (GIEB). Bali Import and Export Combine.	Djl. Kentjur 40, Djakarta.
Gabungan Importir Menengah Indonesia (GIMI). Indonesian Middle Class Importers Combine.	Djl. Gunung Sari 49, Djakarta.
Persatuan Importir Pbarmasi Indonesia (PIPI). Indonesian Pbarmaceuticals Importers Assn.	Djl. Kebon Sirih 33, Djakarta.
Gabungan Pengusaha Perkebunan Indonesia (GPPI). Indonesian Estate Producers Union.	Djl. Tijgalugur, Purwakarta (West Java).
Gabungan Perkebunan Teh Indonesia (GPTI). Indonesian Tea Estates Union.	Djl. Wanajaso, Purwakarta (West Java).
Persatuan Pedagang Indonesia (PERPI). Indonesian Traders Assn.	Djl. Kabupaten, Purwakarta (West Java).
Persatuan Aanemers Biro (PERABU). Building Contractors Bureau Assn.	Djl. Kebon Kolot, Purwakarta (West Java).
Persatuan Usaha Rakjat Indonesia (PURI). Indonesian People's Enterprises Assn.	Djl. Pasar Djamaat, Purwakarta (West Java).
Ikatan Pedagang Indonesia (IPI). Indonesian Traders Organization.	Djl. Tjagag, Purwakarta (West Java).
Koperasi Bank Tani Indonesia (KBTI). Indonesian Agricultural Bank Cooperative.	Djl. Pasawahan, Purwakarta (West Java).
Gabungan Perusabaan Kaleng Indonesia (GAPERKI). Indonesian Can Industries Combine.	Djl. Braga 3, Bandung.
Gabungan Pertenuanan Indonesia (GAPERTI). Indonesian Weaving Union.	Djl. Bantjeuj 51, Bandung.
Gabungan Pedagang-Pengusaba Nasional Indonesia. Indonesian National Traders and Producers Union.	Djl. Pasar Baru Blakang 177, Bandung.
Gabungan Importir Djawa Tengah (GABID). Central Java Importers Combine.	Djl. Purwadinatan Tengan 26, Semarang.
Perserikatan Dagang Indonesia Kalimantan Barat (PERDIKAB) West Borneo Indonesian Chamber of Commerce.	Pontianak.
Gabungan Usaha Tenaga Pedjuan Indonesia (GUTPIN). Indonesian Power Enterprises Assn.	Djl. Maluku II No. 38, Makasar.
Persatuan Perusahaan Pengerdjahan Karet (PPPK). Rubber Goods Industries Assn.	Djl. Gondangdia-lama 4, Djakarta.
Gabungan Pengusaha Nasional Indonesia (GAPENI). Indonesian National Industries Assn.	Djl. Balai Kota Conset 4, Makasar.
Persatuan Kaum Menengah (Middenstand Shop)[4]. Small Businessmen's Assn.	Djl. Nusantara 34, Djakarta.
Pekumpulan Dagan Tiong Hoa. Chinese Cbamber of Commerce.	Djl. Gadjab Mada 175, Djakarta.
Federasi Gabungan Phrahoto Indonesia (FEGRAPI). Federation of Indonesian Trucking Unions.	Djl. Tjikini Raya 30, Djakarta.
Tbe Bombay Merchants Assn	Pasar Baru Selatan 10, Djakarta.
Gabungan Koperasi Perikanan Indonesia (GKPI). Indonesian Fishery Cooperatives Assn.	Djl. Krapu 14, Djakarta.
Organisasi Verenigde Exporteurs van Indonesiscbe Production (OVEIP).[5] Organization of Associated Exporters of Indonesian Products.	Kebon Sirib 30, Djakarta.
De Ondernemersbond voor Indonesia. Employers' Association for Indonesia.	Factorijgebouw, Djakarta.
Persatuan Insinjur Indonesia (PII). Indonesian Engineers Assn.	Djl. Baladewa 24, Djakarta.
De Industrieele Bond. Tbe Industrial Assn.	Djl. Nusantara, Djakarta.

See footnotes at end of table.

Name, in Indonesian and English	Address
Perhimpunan Bank Nasional Indonesia (PERBANIA). Indonesian National Banks Assn.	Djl. Kehon Sirih 33, Djakarta; Djl. Radjawali 12, Surahaja.
Vereniging van Importeurs-Groothandelaren in Indonesia (VIGI) .[6] Association of Importers-Wholesales in Indonesia.	Kehon Sirih 28, Djakarta.
Biro Insinjur Kimia Indonesia. Indonesian Chemical Engineers Bureau.	Djl. Hassanudin 24, Bandung.
Ikatan Dardjana Hukum Indonesia (ISHI). Indonesian Lawyers Assn.	Djl. Kramat Raya I, Djakarta.
Gahungan Importir Mohil Indonesia (GIMI). Indonesian Automohile Importers Assn.	Djalan Serang 18A, Djakarta.
Perserikatan Pedagang Alat Mohil. Automobile Parts Traders Assn.	Menteng 24E, Djakarta.
Persatuan Importir Indonesia.[7] Indonesian Importers Assn.	Djalan Tundjungan 82, Surahaja.
Sotexsi. Central Organization of Textile Enterprises.	Surakarta (Solo).
Ikatan Pengusaha dan Pedagang Ketjil. Association of Small Traders and Industrialists.	Djalan Tamansari III/33, Djakarta.
Bond Eksportir Gula Indonesia (BEGI). Indonesian Sugar Exporters Assn.	Djl. Djemhatan Merah 7, Surahaja.
Persatuan Cameraman Indonesia. Indonesian Cameramen's Assn.	125 Bidaratjina, Djatinegara, Djakarta.
Perserikatan Pahcrik Limun Djakarta. Djakarta Soft Drink Bottlers Assn.	Djl. Teluk Betung 15, Djakarta.

[1] DEIP, the largest single commercial organization, is a federation with some 18 local affiliated chamhers. Publishes a trade directory and issues a weekly newsletter.
[2] Principal association of Indonesian importers.
[3] An association of Indonesian industrialists interested in promoting foreign investment.
[4] A wholesaler-retailer organization. Interested in opportunities for direct importation. Issues circulars for its members.
[5] Puhlishes frequent circular newsletters carrying, among other items, export opportunities.
[6] Issues circulars and biweekly hulletin. Publicizes import opportunities among its memhers.
[7] Principal association of national importers in East Java.

Excerpts From the Commercial Code

The Commercial Code of the Netherlands Indies (*Het Wetboek van Koophandel Nederlandisch Indie*), which is still in force in Indonesia, was promulgated in 1847.[1] A number of revisions have taken place since that time, particularly in 1927 and 1938. The code was originally intended for Westerners only, but in subsequent years it was made applicable to foreign Asians and to Indonesians. In the latter application, however, the law applies only to matters which are not provided for in the Indonesian *adat* law, for example, in matters pertaining to bills of exchange, promissory notes, and bills of lading.

Included here is a translation only of those articles which are considered of particular interest to potential foreign investors, i. e., articles dealing with forms of business operation and bookkeeping requirements.

GENERAL STIPULATION

Article 1.—The Civil Code, insofar as it has not been specifically deviated from by this code, shall be applicable to the subjects dealt with in this code.

First Book

CONCERNING BUSINESS IN GENERAL

First Title

Articles 2–5. (Deleted.)

Second Title

Concerning Bookkeeping

The old articles 6–11 and 13 have been partly superseded by the new articles 6–9 and partly deleted.

Article 6.—Every merchant is obliged to keep records in accordance with the requirements of his business, of his financial position, and of everything that concerns his business, in such manner that cognizance can at all times be taken from these records regarding his rights and obligations.

He is required to draw up annually, within the first 6 months of every year, a balance sheet in accordance with the requirements of his business and to sign this personally.

He is required to retain the books and documents which contain his records as indicated in the first paragraph, as well as the balance sheets, for 30 years, and the letters and telegrams which he has received and copies of outgoing letters and telegrams for 10 years.

Article 7.—The judge is free to attach such validity, as far as their value as evidence is concerned, to the records, balance sheets, and copies, mentioned in the previous article, for the benefit of the merchant who has kept them, as he shall deem consistent for each particular case.

Article 8.—The judge may, in the course of a lawsuit, upon request or by virtue of his office, instruct each of the parties or any one of them to open up the books, documents and manuscripts, mentioned in article 6, third paragraph, so that they may be inspected or that an extract may be taken therefrom, insofar as he deems this necessary in connection with the point in dispute.

He may consult experts concerning the nature and contents of the documents which are submitted, during the lawsuit as well as in the manner set forth in articles 215 through 229 of the "Reglement op de Rechtsvordering" (the Rules of the Procedure).

The judge can if his instructions are not carried out take such steps as he deems necessary.

Article 9.—In case the books, documents, and papers are held in another place than that where the judge before whom the case is brought is established, he may instruct the local judge to make the desired inspection and to draw up and forward to him an official report of his findings.

Articles 10, 11, and 13. (Deleted.)

Article 12.—Nobody can be compelled to submit his bookkeeping for inspection otherwise than in behalf of the person who, as heir, interested party in a partnership, as partner, or as appointer of buying agents or administrators, has a direct interest therein and, finally, in case of bankruptcy.

Third Title

Concerning Some Types of Partnerships

First Section

General Stipulation

Article 14. (Deleted.)

Article 15.—The partnerships mentioned in this title are governed by agreements of parties, by this code and by the Civil Code.

Second Section

Concerning Open Partnerships and Sleeping Partnerships Also Called "En Commandite"

Article 16.—Open partnership is a partnership concluded for pursuing a trade under a joint title.

Article 17.—Each one of the partners, who is not excluded therefrom, is entitled to act in the name of the partnership, to spend and accept funds for the partnership and to bind the partnership toward third parties and third parties toward the partnership.

[1] The basic law (Wetboek van Koophandel voor Nederlandisch Indie) was published April 30, 1847, S., No. 23. The excerpts given here (articles 1–56), which deal with forms of business organization and bookkeeping requirements, were translated from Engelbrecht's *De Wetboeken Wetten en Verordeningen Benevens de Voorlopige Grondwet van de Republiek Indonesie,* 1954, and include revisions in the law up to 1954.

Actions not related to the partnership or to which the partners are not authorized under the agreement are not covered by this stipulation.

Article 18.—In open partnerships each of the partners shall be severally liable for the whole by reason of the obligations.

Article 19.—The sleeping partnership, otherwise called "en commandite," is concluded between one person, or between more partners who are severally liable for the whole, and one or more other persons as moneylenders.

Thus a partnership can at the same time be an open partnership in respect of the open partners and a sleeping partnership in respect of the moneylender.

Article 20.—Apart from the exception appearing in the second paragraph of article 30, the name of the sleeping partner may not be mentioned in the firm.

This partner may not perform any act of management or be employed in the partnership, not even in virtue of a power of attorney.

He shall bear no further part in the damage than up to the amount of the funds which he has brought or had to bring into the partnership without ever being obliged to return the profits enjoyed by him.

Article 21.—The sleeping partner who contravenes the stipulations of the first paragraph or of the second paragraph of the preceding article shall be severally liable for the whole for all debts and obligations of the partnership.

Article 22.—Open partnerships must be concluded by authentic deed; the absence of a deed may not be set up against third parties.

Article 23.—Open partners are obliged to have the deed entered into the registers concerned at the registry of the court of justice within whose jurisdiction the partnership is established.

Article 24.—The partners of open partnerships are free, however, only to enter an extract in authentic form into the registers.

Article 25.—Anyone may inspect the registered deed or the extract thereof and may, at his own expense, procure a copy of same.

Article 26.—The extract mentioned in article 24 must contain:

1. The name and Christian name, occupation, and place of residence of the open partners;

2. The statement of the firm indicating whether the partnership has a general character or whether it restricts itself to any special branch of industry, and, in the latter case, mentioning that special branch;

3. Indication of the partners who are excluded from signing for the firm;

4. The moment on which the partnership starts and will end;

5. And, furthermore, in general, such parts of the agreement which must serve to define the rights of third parties in respect of the partnership.

Article 27.—The entry into the register must bear the date of the day on which the deed or the extract from same has been presented at the registry.

Article 28.—The partners are, moreover, obliged to publish an extract of the deed, in accordance with article 26, in the official newspaper.

Article 29.—As long as that entry has not been made and the publication has not taken place, the open partnership shall be considered toward third parties as having a general character in respect of all transactions as concluded for an indefinite period, and as excluding none of the partners from the right to act and sign for the firm.

In case of a difference between the entry into the register and the publication, only those stipulations shall act against third parties which have been published in the official newspaper in connection with the preceding article.

Article 30.—The firm of a dissolved partnership may—either in virtue of the agreement, or in case the expartner, whose name appeared in the firm, explicitly concurs therewith, or when, in case of decease, his heirs do not object thereto—be carried on by one or more persons who, in proof thereof, must produce a deed and have it entered at the registry and published in the official newspaper, in accordance with and as prescribed by article 23 and following, and on the penalty as set forth in article 29.

The stipulation of the first paragraph of article 20 does not apply in case the retired party has changed from an open partner into a sleeping partner.

Article 31.—The dissolution of an open partnership prior to expiration of the term indicated in the agreement, or brought about by resignation or termination, the extension of same after expiration of the term fixed, as well as all changes brought about in the original agreement, which concern third parties, must likewise take place by authentic deed and are subject to the aforementioned registration and publication in the official newspaper.

The result of omission thereof shall be that dissolution, resignation, retirement, or changes shall not act against third parties.

In the event of neglect of registration and publication in case of extension of the partnership, the stipulations of article 29 shall be applicable.

Article 32.—On dissolution of the partnership, the partners who possessed the right of management will have to liquidate the affairs of the expartnership in the name of the same firm, unless otherwise stated in the agreement or unless the joint partners (excluding the sleeping partners) severally and by majority of votes had appointed another liquidator.

In case of a tie the court of justice shall take such decision as it shall deem most advisable in the interest of the dissolved partnership.

Article 33.—In case the cash position of the dissolved partnership does not suffice to pay all due debts, those in charge of the liquidation may demand payment of the necessary funds which will have to be brought in by each of the partners for his share in the partnership.

Article 34.—The funds which can be spared from the cash of the partnership during the liquidation will be provisionally divided.

Article 35.—After liquidation and partition—if nothing has been arranged with regard thereto—the books and papers that belonged to the parted partnership shall remain in the custody of that partner who shall be appointed thereto by majority of votes, or—in case of a tie—by the court of justice; except for free access thereto by the partners or their successors in title.

Third Section

Concerning Limited Liability Companies

Article 36.—The limited liability company (stock company) has no firm name nor bears the name of one or more of the members, but it derives its name solely from the object of its business.

Before it can be instituted, the articles of incorporation or a draft thereof must be forwarded to the Governor-General [2] or to the authorized party appointed by him, in order to receive his assent thereon.

A similar assent is required for each change in the conditions and for an extension of its term of existence.

Article 37.—In case the limited liability company is not in contravention of sound morals and public order and if, furthermore, there exist no important objections against its establishment, nor do the articles of incorporation contain stipulations conflicting with everything prescribed in articles 38 through 55, the assent will be granted.

In case of refusal of the assent the reason thereof shall be reported to the applicants for their information, unless this should be deemed inadvisable.

If terms thereto exist the assent may be made dependent on the condition that the company shall submit itself

[2] Now submitted to the Minister of Justice. Other references to the Governor-General in these excerpts should also be read as Minister of Justice, since these duties were taken over by that Minister.

to dissolution if this is judged necessary by the Governor-General for the public benefit.

In case the assent has been granted unconditionally the company cannot be dissolved on public authority unless the high court of justice—after having been heard on the matter—shall have declared that the managers have not complied with the stipulations and conditions of the articles of incorporation.

Article 38.—The articles of incorporation of the company must be passed authentically, otherwise they are invalid. The members are bound to register the articles as well as the consent of the Governor-General in the public registers intended for this, at the office of the Council of Justice within the territory where the stock company is located, and to publish the same in the official newspaper.

All the above rules apply also to alterations of the conditions, or when the period of existence of the stock company is extended. Article 25 applies here also.

Article 39.—As long as the above-mentioned registration and publication have not been attended to, the managers for all their acts are jointly and severally responsible to third parties.

Article 40.—The capital of the stock company is divided into shares, registered or to bearer.

The members or holders of these shares are not further responsible than for the full amount of their shares.

Article 41.—No shares to bearer can be issued as long as the full amount for them has not been deposited to the account of the stock company.

Article 42.—The articles of incorporation shall provide the manner in which transfer of registered shares may be effected; this can take place by means of a statement of the member and the buyer addressed to the managers, or by a similar statement entered in the books of the stock company and signed by or on behalf of both parties.

Article 43.—In case the full amount for such share has not been paid, then the original holder, or his heirs or claimants, shall remain bound to pay the amount due to the stock company, unless the managers and the directors (commissarissen), if the latter exist, have explicitly satisfied the new recipient and the former had been relieved from all responsibility.

Article 44.—The stock company is managed by managers appointed by the members, participants, or others, who receive wages or not, under or independent of the control of the directors (commissarissen).

The managers are appointed subject to recall.

Article 45.—The managers shall bear no further responsibility for the proper execution of the mandate given them; they are as far as the obligations of the stock company are concerned not personally responsible to third parties.

If, however, they violate one or other of the stipulations set down in the articles of incorporation or any alterations in them, then they are individually responsible to third parties for the whole of the damage which these third parties have suffered therefrom.

Article 46.—The stock company must be entered into for a specific period of time, subject to an extension thereof each time after expiration of that period.

Article 47.—As soon as the managers become aware that the nominal capital has sustained a loss of 50 percent, they are obliged to report this in a register at the office of the court of justice, as well as in the official newspaper.

In case the loss amounts to 75 percent, the stock company is dissolved and the managers shall be personally and severally responsible for the whole toward third parties for all obligations which they have undertaken after they were or should have been aware of the said decrease.

Article 48.—To prevent the dissolution above mentioned, the articles may contain regulations to the effect that a reserve fund be formed, from which the required funds may be supplied entirely or partially.

Article 49.—The articles may not stipulate any fixed interests. The dividends are made from the returns after deducting all expenses.

It may be agreed upon, however, that these dividends will not exceed a fixed amount.

Article 50.—The assent of the Governor-General, referred to in article 36, will not be granted unless it is proved that the original founders together represent at least one-fifth of the nominal capital; furthermore a period shall be established within which the remaining shares will have to be placed. This period may at any time be extended by the Governor-General at the request of the founders or by the authorized party indicated thereto by the Governor-General in virtue of the 2d paragraph of article 36.

Article 51.—The company cannot commence to act before at least 10 percent of the capital has been paid up.

Article 52.—If the activities of the directors are restricted exclusively to the supervision of the managers and they, therefore, do not participate in any act of management, they may be authorized by the articles of incorporation to examine and approve in the name of the members the managers' accounts.

If the directors are not so authorized, the inspection and approval must be made by the members or by persons appointed for this purpose by the articles of incorporation.

Article 53.—In case of stock companies of insurance of specific objects, the articles must fix a maximum, above which the same object may not be insured, unless the members agree, by an explicit stipulation, to leave this to the decision of the managers, with or without the directors.

Article 54.—The articles shall provide the manner in which the members may exercise their right to vote. However, the same person is not allowed to have more than 6 votes in case the company consists of 100 or more shares; and not more than 3 votes when the number of shares is less.

No manager or director may act as attorney during the voting.

Article 55.—The managers are obliged to submit to the members once a year a statement of profits and losses.

This statement may be made either at a general meeting or by forwarding to each member or by informing the members that a statement is open for inspection in a certain place during a period as set down in the articles.

Article 56.—A dissolved stock company shall be liquidated by the managers unless the articles contain other provisions.

The stipulation of article 36 is applicable in this case.

Fourth Title
(Lapsed)

Fifth Title

Concerning Commission Agents, Forwarding Agents, Carriers and Concerning Skippers Plying on Rivers and Inland Waterways

First Section

Concerning Commission Agents

Article 76.—A commission agent is a person, who either in his own name or the name of his firm, and for a certain salary or commission, does business at the order and for the account of another.

Article 77.—The commission agent is not obliged to give the name of the person for whom he deals to the person he transacts business with.

He is, just as if it was his own firm, directly connected with his cocontractor.

Article 78.—The person who pays commission has no right to demand anything from the person with whom the commission agent has transacted business, and neither can the person who has dealt with the commission agent demand anything from the party who pays the commission.

Article 79.—In case, however, the commission agent has acted in the name of his principal, then his rights and obligations also toward third parties are ruled by the regulations of the Civil Code under the title of "lastgeving" (instructing anyone).

He has the privilege not covered by the following articles.

Article 80.—A commission agent has, for the claims which he has on his principal, for the funds advanced by him, interests, costs, and commission, as well as for his standing agreements, a first right to the goods which the person who pays the commission gives to him to sell or to keep them under his control until further notice, or which he has bought and received for him, as long as they are under his control.

This privilege is valid before all others, except the one of article 1139, 1st, of the Civil Code.

Article 81.—If the goods meant in article 80 have been sold and delivered to the person who pays the commission then the commission agent pays to himself from the returns of the sale the amount of his claims, for which he has obtained the privilege by that article.

Article 82.—If the person who pays the commission has sent the commission agent any goods with the instruction to keep them under him or has restricted him as regards the selling is concerned, or in case the order to sell has been canceled, and the former does not meet the claims which the commission agent has on him, and for which article 80 has given him a privilege, then the commission agent can when submitting the necessary proofs obtain permission from the Council of Justice in the place where he lives, on a simple petition, to sell those goods entirely or partially in the way as set down in the verdict.

The commission agent is obliged to inform the person who pays the commission, about his request for permission as well as about the sale which has taken place after the permission has been obtained, not later than the next day if there is a daily postal service or a telegraph connection, or otherwise by the first outgoing mail.

A telegram or a registered letter is considered sufficient notification.

Article 83.—A commission agent who has bought and received goods for the person who pays the commission can, in case the latter does not meet the claims which the commission agent has on him, and for which he has obtained a privilege in article 80, in the same way as laid down in the previous article, be authorized by the Council of Justice in the place of his residence to sell the goods.

The last paragraph of article 82 applies here.

Article 84.—In case of bankruptcy of the person who pays the commission, the regulations in articles 56, 57, and 58 of the bankruptcy claims apply, as regards the pawnholder or pawnbroker, to the commission agent and to the person who pays the commission.

The postponing of payments by the person who pays the commission does not prevent the commission agent from using the authority which has been granted him by the articles 81, 82, and 83.

Article 85.—The granting of authority by the articles 81, 82, and 83 does not do away with the right of "terughouding" (retention), where the commission agent has this on the ground of article 1812 of the Civil Code.

Article 85a.—In those cases where a person, without making this type of activity his business, makes a contract in his own name or in the name of his firm for the account of third parties, against payment of a fixed remuneration or a commission, the provisions of articles 77, 78, 80 to and including 85, 240, and 241 apply.

Mining Laws

No basic changes have been made in the postwar period in the mining laws of Indonesia—a summary of which is presented in this appendix—although as of 1955 new legislation was being drafted. This summary of the laws was prepared by E. P. Youngman of the U. S. Bureau of Mines in 1931 and issued at that time as Bureau of Mines Information Circular 6451; however, a few minor deletions have been made.

In reading the summary the substitution of Indonesia for Netherlands Indies in most instances brings the statements up to date. It should be mentioned, however, that the granting of mining concessions, one of the important aspects covered by these laws, has been negligible in the postwar period. The so-called "Hassan motion" passed by the Indonesian Parliament in 1951, which forbids the Government to grant new mining concessions until a new mining law is passed, is still in effect.

INTRODUCTION

The basic mining law of Netherlands Indies is contained in N. I. Statute 1899, No. 214, as amended by N. I. Statute 1910, No. 588, and 1919, No. 4, which is quoted as the "Indies Mining Law," the effective date of which was fixed as May 8, 1907, by proclamation dated October 12, 1906. The Indies Mining Law was supplemented by Ordinance No. 38, of 1930, which was passed by the Volksraad on March 18, 1930, to become effective on October 1, 1930 (superseding an earlier ordinance entitled "Government Gazette," 1906, No. 434).

An important law with respect to American petroleum rights, Statute No. 23, passed February 9, 1928, approving contracts between the Netherlands Indies Government and the Netherlands subsidiary of a large American oil company, is in the nature of a private law or of an enabling act (see section entitled "Rights of Foreigners"). Statute 1930, No. 348, effective October 1, 1930, sets forth in minute detail conditions under which prospecting and mining permits may be granted. Statute 1930, No. 341, effective October 1, 1930, embodies the police regulations of the mining industry.

All citations in this abstract designated by numbers alone refer to the Indies Mining Law of May 8, 1907. "M. O. 38" refers to the supplementary ordinance of 1930. "S. 23" refers to the petroleum law of February 9, 1928. Mere mention is made of the other statutes enumerated in the foregoing paragraph.

MINERALS SUBJECT TO INDIES MINING LAW

The following minerals, designated in the Indies Mining Law (sec. 1, art. 1) as those that the holders of surface rights may not dispose of, are governed by this law and supplementary ordinances:

(a) Precious stones, graphite, platinum, osmium, iridium, gold, silver, mercury, bismuth, molybdenum, tin, tungsten, lead, copper, zinc, cadmium, nickel, cobalt, chromium, iron, manganese, antimony, arsenic, and strontium, either native or as ore, and also other minerals if they are found in the same lode and "thus have to be exploited together"; minerals that may be exploited on account of their sulfur content (including the making of alum); phosphates that may be used as fertilizers; saltpeter; rock salt[1] and all salts that are associated therewith in the same deposit.

(b) Anthracite and all kinds of pit coal and brown coal (lignite); petroleum, asphaltum (mineral pitch), resin (mineral wax), and all other kinds of bituminous substances, both solid and liquid, and inflammable gases (except marsh gases); iodine and its compounds.

RIGHTS RESERVED TO GOVERNMENT

Article 5a of the Indies Mining Law entitles the Government to have prospecting and developing carried out wherever such work would not interfere with rights granted to permit holders or concessionaires.

The Government may do the work itself or may enter into agreements with persons or companies that have complied with the provisions of the law with respect to citizenship or domicile. Such agreements, unless they refer exclusively to prospecting, shall not be entered into without authority of law, however. The decree reserving areas or parts of the country must mention the minerals to be prospected for or mined.

Article 28, in section 2a, provides that petroleum and allied minerals, which come under subsection (a), section 1, article 1, may be mined only by the Government or by persons or companies under contract with the Government.

RIGHTS OF FOREIGNERS

The language of the law itself does not expressly discriminate against foreigners, although, as in many other countries, foreigners must obtain domicile rights, and companies not having their seat in the Netherlands or the Netherlands Indies must have their representatives there. The full language of the law in this respect, as set forth in article 4 of the Indies Mining Law, is given in a succeeding paragraph.

With respect to petroleum rights, at least, actual reciprocity between the Netherlands Indies and the United States was clarified in 1928. Although the terms of the law seemed to permit the acquiring of mineral leases or concessions affecting mineral lands in the Netherlands or her colonial possessions by American-owned corporations formed under the laws of the Netherlands or of her possessions, repeated application by or on behalf of American interests had been rejected, although the Netherlands Government had enjoyed a similar right in the United States for a number of years (since 1923).

As a result of diplomatic exchanges between the two Governments, the law of February 9, 1928 (S. 23) was

[1] Rock salt, however, cannot be mined except at places not subject to the salt monopoly (art. 5).

passed, authorizing the Minister of Colonies, as representing the Netherlands Indies, to sign contracts with a company in which American capital is heavily interested, making it possible for that company to exploit important petroleum lands in the Netherlands Indies. In return, the United States Government formally recognized the Netherlands as a reciprocating country within the meaning of the United States Mineral Leasing Act of February 25, 1920.

Although the law itself does not discriminate against foreigners, and article 5a of the Indies Mining Law expressly authorizes the Government of the Netherlands Indies to reserve lands and to enter into contracts with persons or companies for the exploration of the land and the exploitation of the minerals reserved to itself (as are petroleum and allied substances), the law further provides, in the same article, that legislative approval must be obtained of any contracts so formed. Therefore, American rights with respect to minerals reserved to the Government depend in each instance upon satisfactory negotiations with the Government of the Netherlands Indies and also upon favorable parliamentary action.

Article 4 of the Mining Law reads as follows:

1. No one may hold prospecting licenses or concessions, except:

a. Full citizens of the Netherlands.

b. Those domiciled in the Netherlands or Netherlands Indies and who have the rights of domiciled persons.

c. Companies, which have their seat in the Netherlands or the Netherlands Indies, and, if limited liability companies, whose manager or director (or if there are two, both, or if there are more managers, the majority, as well as the majority of the directors) and if firms (partnerships), whether with working or sleeping partners, whose managing partner (or if there are two, both, or if there are more managing partners, the majority of them) are full citizens of the Netherlands or are domiciled in the Netherlands Indies and have full rights of domiciled persons and, if the latter, at the same time reside in the Netherlands Indies or in the Netherlands—

On condition that persons that are not residing or companies that have no seat in the Netherlands Indies shall be obliged to have a duly appointed representative there; and that persons residing in the Netherlands Indies, being the representatives in the Netherlands Indies of those who are not residing in the Netherlands Indies, and the directors who are residing in the Netherlands Indies or the representatives of companies that have their seat in those Indies or in the Netherlands be entitled to reside within the Province or Provinces in which the prospecting license or concession has been granted.

2. Applicants for a prospecting license or a concession shall be obliged to fix their (legal) domicile during the life of the license or the concession and for all matters connected therewith at the head office of the Provincial Government within which the prospecting area or the concession area is wholly or partly situated.

3. The rights and obligations connected with a prospecting license, as well as those connected with a concession, revert from the legal possessor at his death to his rightful successor, if they either immediately or within a year from the date when the inheritance became available comply with the provisions of this article. They may be assigned within the year to persons or companies that comply with the provisions of this article and in case of prospecting licenses observe the stipulations of section 7 of article 7 and for the rest on condition of sanction being obtained.

4. Differences as to whether the provisions of this article have been complied with shall be decided by the judge in the manner laid down by ordinance.

One condition of a permit or a concession may be that the personnel working on the estate must consist partly or entirely of Netherland subjects (art. 70, M. O. 38). According to the American chargé d'affaires at The Hague as of 1931 the usual requirement was that two-thirds of the employees must be nationals of the Netherlands.

OWNERSHIP

The general principles of the ownership of minerals, as described in mining legislation, are as follows:

1. Regality, according to which minerals belong to the state, which has the exclusive right to extract them or have them extracted.

2. Common-law theory of ownership, whereby the owner of the surface land owns also the subsoil.

3. Res nullius, the theory that the minerals are owned by no one and that the rights of disposal belong to the discoverer, within limits imposed by law.

In the Indies Mining Law applications of all three theories are found, varying with the nature of the mineral, as well as with the reservation or nonreservation of the land.

The right of the Government to reserve land and control all minerals thereon (which is exercised fully in the case of petroleum) is an example of the theory of regality. The common-law theory of ownership (adopted in the United States) has but slight application in the Netherlands Indies. Subsection (a) of article 6 of the Mining Law exempts from the provisions of the law minerals exploited by natives (or those placed on the same footing) if the mining is done on a small scale and for their own account and profit.

The third theory (res nullius), however, is the one generally applicable to minerals other than coal and petroleum, as any one, by complying with the conditions of the law, may obtain prospecting and mining permits, and the owner of the surface may not prevent such operations on his land by a licensee of the Government.

PROSPECTING

Application.—An application for a prospecting permit is made to the head of the Mining Service,[2] who has power to grant or refuse the petition, but whose decision is subject to appeal.

The application must be in the form prescribed by the head of the Mining Service. It must be accompanied by an unstamped copy, certified by the applicant, as well as by a map in duplicate and by any other required documents (art. 12, M. O. 38). The chief of the Mining Service shall place on both copies of the application the date and the hour of their receipt and shall return one copy to the applicant (sec. 2, art. 7). Every applicant for a permit must present documentary evidence that he has complied with the requirements of article 4 of the Indies Mining Law, with respect to citizenship or domicile rights (art. 13, M. O. 38).

The chief of the Mining Service publishes in the *Javasche Courant*[3] the hours during which daily (except Sundays and holidays) applications will be received by him or by another officer appointed for that purpose.

The right to prospect a given area may be granted to only one person or one company (art. 77, M. O. 38).

Priority.—The application that has been handed in first, in order of date, shall have preference. Should two permits be asked for simultaneously, for the same area, the drawing of lots decides which application shall have preference (sec. 3, art. 7; sec. 1, art. 22, M. O. 38). (For further details, see sections 2 to 6, inclusive, art. 22, M. O. 38.) Appeals from decisions upon applications may be made to the Governor-General, who may set aside, on the ground of equity, the provisions with respect to the time of the receipt of applications (sec. 5, art. 7).

Protests or objections.—Those who have a right to the land, interested third parties, and all whose interests might be endangered by the granting of a permit may submit their

[2] Wherever Mining Service is referred to, read as Department of Mining (Djawatan Pertambangan) of the Ministry of Economic Affairs.

[3] For Javasche Courant, read *Official Journal of the Republic of Indonesia.*

objections to the head of the Provincial administration, as well as to the head of the local administration, within 1 month after the application for a permit has been announced and within 2 days from the day on which the application has been published in the *Javasche Courant.*

Natives and foreign orientals may lodge their protests also with the nearest proper European official and with any native official that may have been detailed for that purpose by the head of the local administration. Natives and foreign orientals may present their objections verbally, whereas all others must make their protests in writing (sec. 1, art. 21, M. O. 38).

Further details are given in sections 2 to 6 of article 21 of Mining Ordinance 38. The applicant for a permit is informed by the head of the Mining Service of any objections that have been raised (sec. 5, art. 21, M. O. 38).

Decree granting permit.—A certified copy of the decree granting a permit is issued to the applicant. No charge is made other than stamp duty for the first copy (sec. I, art. 26, M. O. 38). In the decree granting a permit, mention must be made of any objections that may have been made, or specific mention must be made of the fact that no objections have been raised. A decree refusing a permit must contain the reasons for refusal (sec. 1 and 2, art. 24, M. O. 38).

Conditions may be attached to the license (sec. 4, art 7). Statute 1930, No. 348 (October 1, 1930), contains conditions imposed upon the granting of a prospecting permit. They relate to the furnishing of information with respect to compliance with the mining laws; the supplying of data requested in an investigation; the presenting by heirs of proof of compliance with article 4 of the Indies Mining Law; the reporting of changes in personnel of companies; the recording and reporting of mining activities and mineral production; the making by the Government of appraisals of taxable commercial products; and like matters.

These conditions may not be altered or increased in number so long as the permit is in force, except with the approval of the holder thereof (sec. 1, art. 69, M. O. 38). No new or altered conditions may be attached to the extension of a permit, to the license to transfer a permit, or to a new permit, except with the consent of the holder thereof or of the party that obtains it (art. 71, M. O. 38).

Publication.—The head of the Mining Service, after investigation, announces the application that may be granted, sending a copy of the application (with a map or drawing) to the head of the Provincial administration at whose office the applicant has taken his domicile rights, who in turn publishes the application locally as soon as possible.

If the area applied for is located in more than one Province, the head of the Provincial administration, at whose office the domicile rights have been taken, consults his colleagues before publishing the application. If settlements are located in the area applied for, the application is announced verbally in the native language by the head of the local administration or by another officer appointed for that purpose. A notice is posted in Malay, in the local native language, and, if necessary, in Dutch [4] (sec. 1–3, art. 20, M. O. 38). A decree granting an application for a permit or one approving a transfer must be published (sec. 3, art. 24, M. O. 38).

Area and boundaries.—A prospecting license shall be for a field of indefinite depth, vertically within the limits of the area set forth in the deed of license (sec. 4, art. 7). An application for a prospecting permit may concern only one area forming a coherent unit (art. 17, M. O. 38). An area for which a permit is issued may not be larger than 10,000 hectares, unless the head of the Mining Service, in agreement with the head of the Provincial administration concerned, consents to a larger area. Should these authorities disagree, the head of the Mining Service applies to the higher authorities for a decision (sec. 1–2, art. 19, M. O. 38).

[4] The notice would now be posted in Indonesian.

Requirement respecting work.—The only apparent requirement with respect to work to be done under a prospecting license is that prospecting must be commenced within a period of 1 year from the date of the granting of the license (sec. 6, art. 7). The decision as to whether exploration has been commenced within the required period rests with the head of the Mining Service (art. 57). Waiver of the time limits may be made should it be impossible to commence exploration or be necessary to stop exploration partly or entirely because of controlling forces not included in the ordinary risks (art. 65, M. O. 38).

Duration of permit.—A prospecting license shall be granted for a certain period, not to exceed three consecutive years. It may be renewed twice, by the head of the Mining Service, each time for a maximum period of 1 year, and upon an application of the licensee made within 3 months before the end of the period for which the license was granted (sec. 4, art. 7). Applications submitted after or more than 3 months before the expiration of the original permit are rejected unreservedly (art. 61, M. O. 38).

Transfer.—A prospecting permit is transferable only with the consent of the Government (sec. 7, art. 7). Permission to transfer is refused when it has not been proved (by submitting receipts or in any other way) that amounts due for taxes and permanent duty have been paid, or when the prospecting permit has been canceled (art. 25, M. O. 38).

A certified copy of the decree granting a transfer is issued to each of the parties concerned in the transfer, for which no other charge than stamp duty is made (sec. 1, art. 26, M. O. 38).

The corners of an area applied for must be chosen in such a way that at least one of them is either a permanent point that can be easily located in the field and not subject to change or removal or one that may be determined easily in relation to such a point in the vicinity. The connecting lines between the corners must be straight lines, as far as possible. Lines of which the azimuth is not known may not be used as border lines. Meridians and parallels, as well as lines forming angles with them, may be used as border lines, provided that they are determined by points in the vicinity of the area. Clearly distinguishable natural borders may be used as border lines. River banks may be used only when the course of the river is sharply defined and does not run through marshy districts. Likewise, borders between Provinces, regencies, divisions, districts, and like territories may be used (art. 18, M. O. 38).

Areas and boundaries may be changed by a new decree at the discretion of the head of the Mining Service upon further information obtained after the issuance of the original decree. The decision of the head of the Mining Service is final with respect to boundaries (art. 55, M. O. 38).

A permit may be transferred to only one person or one company (sec. 1, art. 77, M. O. 38). A permit may not be transferred to (a) minors, (b) persons of unsound mind, or (c) limited companies the activities of which, according to the statutes, do not include mining operations (sec. 2, art. 77, M. O. 38).

Termination of permits.—A prospecting license is terminated by law (a) at the end of the period for which it is granted or renewed, (b) if the holder thereof fails to comply with the provisions with respect to citizenship or domicile rights, and (c) if, in the event of the death of the rightful holder, his successors do not comply with the provisions mentioned under (b) within the period allowed.

The license *shall* be canceled (a) if prospecting operations are not commenced within a period of 1 year from the date of the granting of the license, and (b) at the request of the holders of surface rights or of interested third parties if operations have been undertaken without the holder's having complied with the stipulations contained in section 9 of the Mining Law with respect to notifying the surface owner of the intention to prospect and with respect to damages (see section entitled "Obligations and Rights of Surface Owners").

The license *may* be canceled (a) if the licensee fails to comply with any of the conditions under which the license was granted, or (b) at the petition of the licensee, either for the whole or for a part of the prospecting area. In the latter case, the license holder shall present his petition, in duplicate, to the proper official, who shall write upon both copies the date and the hour of the receipt of the petition, and who shall return one copy to the petitioner, and who shall render a decision within 3 months.

The canceling of a permit shall be done by the authority by whom the license was granted, but not until the holder has had an opportunity to defend his interests. Appeal from the decision with respect to cancellation may be made in the manner prescribed by ordinance. Decrees canceling permits must mention the grounds upon which cancellation is based and must be served legally through the offices of the head of the Mining Service, unless the cancellation has been made at the request of the holder.

Cancellation of a permit at the request of the holder goes into effect as soon as the decree has been issued to him. In all other cases, cancellation goes into effect on the day that it becomes irrevocable (art 11–12; art. 58–60, M. O. 38).

Rights of the prospector.—The permit grants to the holder thereof, to the exclusion of all others, the right to perform all the work necessary on the prospecting field for the finding of the minerals named in the section entitled "Minerals Subject to the Indies Mining Law," or for the purpose of ascertaining the nature of the mineral reefs discovered and of the minerals found therein, according to the provisions of the act and the conditions under which the license was granted, on condition that the area has not been reserved for those minerals or a concession granted therefor or an agreement entered into concerning them (sec. 1, art. 10).

CONCESSIONS

Mining concessions are granted only for the mining of minerals mentioned in article 1 of the Mining Law (see earlier section entitled "Minerals Subject to Indies Mining Law") whose existence in the mining field as a natural deposit for which their extraction is technically possible has been proved (sec. 2, art. 13). They shall be granted only to applicants who have complied with the provisions concerning citizenship and domicile (art. 4), as given in the section entitled "Rights of Foreigners."

Application.—The requirements with respect to applications for mining concessions are the same as those for applications for prospecting permits (see foregoing section entitled "Prospecting") as far as the authority to whom they are presented and the rulings with respect to the time of their receipt are concerned (art. 27, M. O. 38). However, the Governor-General is the official empowered to grant or refuse a mining concession[5] (see a following section entitled "Decree of concession").

A petition for a concession must state:

1. The name (Christian name and surname) of the petitioner and his place of residence (sec. 5, art. 28).

2. The profession and the age of the applicant (sec. 1, art. 29, M. O. 38).

3. The name of the mineral, or minerals, for which the concession is requested (sec. 5, art. 28).

4. Whether the discovery has been made by the applicant as the holder of a permit or as a concession holder, with a notation of the date and the number of the decree granting the permit or the concession (sec. 2, art. 29, M. O. 38).

5. The location of the discovered deposit or deposits and the boundaries of the area either claimed for concession or already granted as such (sec. 5, art. 28).

6. The location of the native clearances that may be within the limits of the area applied for and the border of the area or areas within which the applicant may not carry out any clearing work without the permission of those who have the right to the native clearings lying therein (sec. 3, art. 29, M. O. 38).

7. The name to be given or already given to the concession (sec. 5, art. 28).

8. The chosen domicile of the petitioner (sec. 5, art. 28).

Supplementary documents required (art. 30, M. O. 38) are:

1. Evidence that the minerals sought exist in a workable deposit.

2. A map, in triplicate, of the area applied for, on a scale not smaller than 1 to 25,000, by a sworn surveyor (or by a person acceptable to the head of the Mining Service), on which the following facts must be indicated:

(a) The borders of the area applied for.

(b) The points suitable for placing signs, two consecutive ones not to be farther apart than 500 meters.

(c) The location of the deposit or deposits discovered.

(d) The location of the native clearings that may be within the borders of the area applied for and the borders of the area or areas within which the concession holder is not allowed to carry out any clearing work except with the consent of those having a right to the native clearings situated therein.

(e) The natural or artificial distinct permanent points on the surface for the purpose of finding bearings.

(f) The astronomical meridian.

(g) The borders of the area covered by a permit or of any part thereof. (This need be included only upon demand by the head of the Mining Service.)

Modifications of or supplements to the foregoing requirements are set forth in sections 2 to 5, inclusive, of article 30, of Mining Ordinance 38.

Conditions of law with respect to overlapping fields are covered by article 46 of Mining Ordinance 38.

The right to a concession or a concession may be granted to only one person or one company (sec. 1, art. 77, M. O. 38).

Right of priority to the discoverer.—The discovery of a mineral mentioned in the first paragraph of the section entitled "Minerals Subject to Indies Mining Law" gives the right to the discoverer, who is either the owner of a prospecting license or a concessionaire on that particular field and who has demonstrated that certain minerals exist and that their acquisition is technically possible, to obtain a concession to mine the discovered mineral, provided he maintains his claim within the period for which the license was granted or an extended period and hands in his petition first in order of date, and provided further that it is not decided that the exploitation of the mineral would not be for the general interest. Should applications for the same field be submitted simultaneously, the decision depends upon the drawing of lots, according to the regulations of section 1, of article 22, of Ordinance 38 (sec. 1–2, art. 28; art. 28, M. O. 38).

The mining of minerals mentioned in paragraph 2 of the section entitled 'Minerals Subject to the Indies Mining Law" (coal, petroleum, and all kinds of bituminous substances) may be done only by the Government or by virtue of an agreement with the Government. Although the demonstration of the presence of these minerals does not give the right to a concession, it may give the right to a reward.

Objections.—Concessions are granted only after all interested parties have had an opportunity to defend their interests (art. 14), which they may plead within 1 month after an application for a concession has been announced and within 2 months after the announcement has appeared. They may raise their objections before the head of the local government and, where natives and foreign orientals are concerned, also before the nearest proper officer as may be detailed for that purpose. Natives and foreign orientals may submit their objections orally,

[5] There is, of course, no longer a Governor-General. And as previously indicated, no mining concessions are being granted at present.

as well as in writing, the oral objections being officially reported by the officer concerned (art. 39, M. O. 38).

Decree of concession.—After an application has been investigated (in conformance with the provisions in articles 40 to 42, inclusive, of Mining Ordinance 38), a decree is issued either of refusal or of approval. A decree of refusal must mention the grounds for rejection, and a full copy thereof is given to the applicant, free of charge (art. 49, M. O. 38).

A decree of approval shall contain (a) the surname, Christian name, profession, and domicile of the concessionaire, (b) the name of the concession, (c) the area and the boundaries of the concession, marked on a map accompanying the decree, (d) the time for which the concession is granted, (e) the name of the Province and the county (or Provinces and counties) in which the concession is located, (f) the name of the mineral (or minerals) granted by the concession, (g) the special conditions, if any, and (h) the date of the issuance of the decree. An authentic copy of the decree shall be handed to the concessionaire (sec. 2–3, art. 30). Regulations with respect to the registering and transcribing of a concession or the obtaining of a legal deed of concession are given in articles 100 to 110, inclusive, of Mining Ordinance 38.

The head of the Mining Service may demand in advance payment for the expenses of drawing the maps required for the decree (art. 47, M. O. 38). The conditions of a concession decree may not be altered or increased in number after the concession has been granted, except with the consent of the holder thereof (sec. 2, art. 69. M. O. 38).

Conditions imposed by Statute 1930, No. 348 (October 1, 1930) have reference to boundary markers; furnishing information with respect to compliance with the mining laws; supplying all data asked for in investigations; presenting by heirs of proof of compliance with article 4 of the Indies Mining Law; reporting changes in the personnel of companies; maintaining production registers; recording and reporting production; furnishing affidavits of the accuracy of reports; recording analyses and assays (if made); appraisals by the Government of taxable commercial products; and similar matters.

Publication.—The provisions for the publication of the application for a concession are practically the same as those governing the application for a prospecting permit. They are covered by article 38 of Mining Ordinance 38. The decree granting a concession is published in full by the Government (art. 48, M. O. 38), as is also the decree rejecting a concession (sec. 2, art. 49, M. O. 38).

Area and boundaries.—A concession is granted for a mining field of indefinite depth, vertically within the limits set forth in the deed of concession (sec. 1, art. 13). An application for a concession may request only one united area forming a coherent unit, the outlines of which are reasonably connected with the discovered mineral deposits (art. 33, M. O. 38). No single concession may be granted for an area larger than 1,000 hectares (art. 35, M. O. 38), except by special permission and under certain conditions, as indicated in sec. 1, art. 19, and sec. 1, art. 30. of the Indies Mining Law, and article 56 of Mining Ordinance 38. Areas exempted from exploitation are covered under the section entitled "Exempted Areas."

The corners and boundaries of a concession area must be chosen in conformity with the provisions for prospecting areas, as noted in discussion of areas and boundaries under the section entitled "prospecting" (art. 34, M. O. 38).

Provisions with respect to applications for the dividing of concession areas, the interchange of parts of bordering areas, the uniting of concession areas, and like matters (which are possible only by new deeds of concessions, according to article 19 of the Indies Mining Law) are covered in articles 111 to 118, inclusive, of Mining Ordinance 38.

Duration.—Mining concessions will be granted for a period not to exceed 75 years (sec. 1, art. 13).

In the third year before the date upon which a mining concession terminates, conditions shall be fixed whereby a new concession may be obtained, if the Government does not wish either to undertake the mining itself or to enter into contracts with others for that purpose. The concession holder must make his acceptance of the conditions within 6 months, or no new concession will be granted except by public competition (art. 34).

Transfer.—The right obtained with a concession is considered immovable property, which may be mortgaged or transferred (sec. 1, art. 18). A permit to transfer a concession may not be transferred (art. 77, M. O. 38) to: (1) Minors; (2) persons declared non compos mentis; (3) limited companies whose activities, according to the statutes, do not include mining operations; or (4) former holders of a forfeited concession (only with respect to the site of the former concession).

The documents of transfer must contain the concession decree in full (art. 102, M. O. 38). Transfer may not be made either to legal heirs or to any others unless those who are to obtain the transfer rights have complied with article 4 of the Mining Law, with respect to citizenship or domicile, etc. (sec. 1, art. 103, M. O. 38). Transfer may not be made until proof has been submitted that the "amounts due as a permanent right" and taxes have been paid (sec. 1, art. 45, and sec. 3, art. 103, M. O. 38).

With the application for a permit to transfer a concession, the copy of the application for the concession held by the concessionaire must be returned to the head of the Mining Service (art. 32, M. O. 38).

Termination of concessions.—Concession rights may be terminated, under certain conditions, by forfeiture, by law, or by request of the concessionaire.

In general, a concession is forfeited if the holder thereof fails to commence work when notified to do so or fails to fulfill the conditions of the concession decree (sec. 1, art. 37). Forfeiture shall not take place until the concessionaire or his representative has been legally served with a written notice that forfeiture is to take place, nor until he has had time to defend his interests, nor until he has been given a year in which to carry out his duties or comply with the demands made. If the failure is with respect to the payment of money, a period shall be prescribed of at least 3 months (sec. 2, art. 37).

The concessionaire's right of appeal, his right to ask for a public sale of the concession for his own benefit, in case creditors have not taken action, and other related matters are covered by article 38 of the Mining Law and by articles 175 to 179 of Mining Ordinance 38. If no sale is requested or if a public auction is without result, the concession is withdrawn (sec. 11, art. 38). The concessionaire remains responsible for all obligations and shall keep the mining works in proper condition and repair until the transfer to his successor shall have taken place or the concession shall have been withdrawn (sec. 12, art. 38).

A concession is terminated by law, (a) if the owner of the concession or the concessionaire ceases to fulfill the requirements of article 4 of the Mining Law (with respect to citizenship and domicile), (b) at the death of the owner of the right of concession or of the concessionaire, with respect to those successors to his title that have not satisfied the requirements of article 4 of the Mining Law (art. 39).

With respect to requests of the concessionaire for withdrawal of his concession, the same regulations as those mentioned in a preceding paragraph with regard to sale apply. If no request for public auction has been made, the registrar will give the concessionaire a certificate to that effect, which will be forwarded to the Government, with the documents by which it is shown that the request was duly served upon the mortgagees. (See article 40 of the Indies Mining Law and see also article 179 of Mining Ordinance 38.)

Section 1, article 41, of the Mining Law provides that at the termination of a concession all obligations with respect thereto cease, and that the Government obtains full and free rights (with the exception of the parts of the surface and the buildings erected thereon belonging to the last concessionaire) of disposal with respect to the mining field and all that is used for protecting and covering the mining works, no compensation being due to the late

concessionaire. Section 2 of the same article provides that the Government shall fix the period allowed the concessionaire for the removal of his property. Article 42 of the same law decrees that in the case of forfeiture the concessionaire, in the event of the sale of the concession, shall place (free of charge) all charts, drawings, and sketches connected with the mining work at the disposal of the Government.

When a decision canceling the rights of a concession holder has been served upon him or his representatives, he may not sell or borrow upon the concession further (art. 74, M. O. 38).

Rights and obligations of the concession holder.—In general, the concession gives the concessionaire the exclusive right within the mining field to extract and dispose of all minerals mentioned in the deed of concession and to erect all works necessary thereto, including necessary auxiliary works outside of the concession area. Minerals not mentioned in the deed of concession may also be disposed of, if listed in the Mining Law, but they require for exploitation a new concession unless their compounds with those mentioned in the grant render their combined extraction unavoidable (art. 16). (See section entitled "Disposal of Minerals.")

For rights of disposition of the surface within the concession area, see section entitled "Obligations and Rights of Surface Owners." License to make roads by land or water, as well as the right of superficies to erect the necessary building, etc., on state domains, will be granted. For ground required for these purposes that is neither within the concession area nor within state domains, the right of expropriation of all properties shall apply (art 22).

The rights and obligations of one concession holder toward another with respect to the building of works are covered by article 95 of Mining Ordinance 38.

A concession holder is entitled to payment for all damage caused by the building on his concession area of "artificial works," railways, canals, or other public means of transport (art. 68, M. O. 38).

OTHER REGULATIONS

Petroleum and Related Substances

As has been stated in the section entitled "Rights of Foreigners," the Government of the Netherlands Indies has reserved to itself all regions known to contain petroleum. All prospecting and exploiting of petroleum and allied products must be done under contract with the Government, which contracts must be approved by legislative action (art. 5a and 28).

A draft agreement, containing detailed regulations, is included in Statute No. 23, the law enacted to authorize foreign companies for the "prospecting for and developing of mineral oil, mineral pitch, mineral wax, and all kinds of bituminous substances, both in solid and fluid and in the gaseous state, so far as these do not form part of a fixed rock that for the winning of these substances must be developed in its entirety, consequently iodine and the combinations thereof . . . ."

A surface owner or an interested third party not a holder of a prospecting permit or of a concession (when building works that he has the right to build) upon discovering fluid bitumens and accompanying gaseous substances (on areas not under permit to another nor under contract with the Government) is allowed to dispose (freely and without payment of excise duty) of the freely flowing or streaming substances discovered until necessary measures shall have been taken, provided the discoverer gives notice to the head of the local government within 8 days after the discovery (art. 99, M. O. 38).

Exempted Areas

In general, exempted areas include "reserved areas," lands which the Government sets aside for exploitation by itself or by those under contract with the Government (art. 5a), areas to be open to public competition (art. 31, and 32), areas or parts of the country closed for reasons of general interest (subsec. c, sec. 1, art. 8), and "native clearings" (art. 88–93, M. O. 38).

Within the boundaries of prospecting or concession areas, prospecting or mining shall not take place on grounds on which fortifications, Government or public buildings have been erected, or churchyards, graves, public roads, canals, or railways have been made, or on grounds considered consecrated according to the religious institutions of the natives, or on grounds on which private dwellings or factories are erected, or within certain distances thereof, unless the holders of surface rights and interested third parties shall have given their consent (sec. 2, art. 8, and art. 20). The specific distances from grounds and buildings are fixed in each case by articles 86 and 87 of Mining Ordinance 38.

Disposal of Minerals

Subject to the rights of others and to the provisions concerning rents and royalties, to be discussed subsequently, a prospector is allowed freely to dispose of the minerals that he obtains, insofar as they belong to the first class mentioned in section 1 of the Indies Mining Law (see section "Minerals Subject to Indies Mining Law" and sec. 2, art. 10 of the law).

The concession holder, in accordance with the provisions of the law and the conditions placed in the deed of concession, has the exclusive right within his mining field to extract all minerals mentioned in his deed, even in old ore deposits of former operations that may be lying within the boundaries of the mining field (sec. 1, art. 16).

The concessionaire has the right to dispose freely (according to the rules laid down by ordinance and for the benefit of his industry exclusively) of such minerals not mentioned in the mining laws as he may extract in the working of the mine (sec. 2, art. 16). Minerals coming under the law (except petroleum and allied substances) but not mentioned in the deed of concession may not be worked unless the compounds of those minerals with those mentioned in the grant render their combined extraction unavoidable (sec. 3, art. 16).

For regulations concerning petroleum products discovered by others than the Government or persons or companies under contract with the Government, see section dealing with regulations with respect to petroleum and related substances.

For further regulations concerning minerals for which no right has been granted, especially of minerals discovered during the building of secondary works, see articles 96 to 99, inclusive, of Mining Ordinance 38.

Obligations and Rights of Surface Owners

The holders of surface rights and other interested parties must permit prospecting provided (1) that they have been informed beforehand by the license holder of his intention to prospect (the licensee being obligated to produce his license or a copy thereof and to locate the place of the proposed operations) and (2) that an indemnity has been either paid or guaranteed to them, according to regulations to be made by ordinance (art. 9).

The obligation of those having a right to the soil to allow prospecting and mining extends to the building and

carrying out of all works and activities required therefor (art. 119, M. O. 38).

If the right of disposition of the surface is required for working purposes for a period not longer than 3 years, the conditious of article 9, quoted in a preceding paragraph, shall apply to mining also (the provisions with regard to the licensee to be applied to the concessionaire, and the showing of an authentic copy of the document whereby the Government granted the concession to be required (sec. 1, art. 21). If the right of disposition of the surface is required for a period longer than 3 years, regulations of expropriation for public interest shall apply (sec. 2, art. 21).

Should excavations, digging, surveying, or the placing of poles on another person's land be considered necessary for the marking off of the concession area, those having a right to the land or interested third parties must allow these operations, provided that they have been notified in writing by the head of the local government 48 hours previously, natives or foreign orientals to be notified either in writing or orally by their chief (sec. 1, art. 67, M. O. 38).

The concessiouaire is liable for, and must make good to the holders of surface rights, all damage caused by the mining operations, whether they be carried out under the surface or not, or whether the damage has been caused by a deliberate act or could not have been foreseen (sec. 1, art. 24). The details concerning damages to surface owners are covered by sections 2 and 3, article 24, of the Indies Mining Law, by articles 26 and 27 of the same law, and by articles 119 to 150, inclusive, of Mining Ordinauce 38, the provisions in the mining ordinance including practice before the courts, both native and European.

Rent and Royalties

According to article 35 of the Indies Mining Law, the Government levies upon each prospecting permit aud upon every discoverer who continues prospecting during the consideration of his application for a concession: (a) A yearly fixed rent, to be paid in advance each year, proportionate to the area of the prospecting grounds; (b) a royalty, payable each year, of 4 percent of the value of the gross yield, after deduction of such quantity of the minerals won as will be declared exempted from taxes by ordinance.

The Government levies on each concession: (a) A yearly fixed rent, to be paid in advance each year, proportionate to the area of the concession grounds; (b) a royalty, payable each year, of 4 percent of the value of the gross yield.

The calculations and the levying of the royalties (or excise duties) are carried out in the same way for both permit holders aud concessionaires, except that in the case of the permit holder or the discoverer, during a calendar year or a part thereof, products up to a certain value may be exempted from tax.

Detailed regulations concerning the calculating and the levying of royalties (or excise duties) are given in article 36 of the Indies Mining Law and in articles 160 to 174, inclusive, of Mining Ordinance 38.

If the concessionaire shall show that the exploitation for the past year was carried on at a loss (or would be if the sums due for the year were paid), the amount of the royalty may be reduced, but not to less than 1 percent of the gross yield (sec. 3, art. 35). No restitution will be made of moneys duly paid for fixed rent (sec. 5, art. 35).

Miscellaneous

Information to be kept confidential.—Every officer carrying out the regulations of the Mining Law, of Ordinance 38, or of the regulations issued for their application is bound to secrecy with respect to everything that he has learned as a result of his official position, except illegal facts, of which he has full authority to notify the officers of the law. Reports of geological mining activities on exploration fields must remain secret until 1 year after the expiration of the term of the permit, unless the holder of the permit gives written permission for their publication (art. 83, M. O. 38).

Safety control.—Safety control, except in cases specifically exempted by ordinance, is in the hands of the personnel of mine inspection, to whom must be given free admittance to all works and access to all information regarding the observance of the Indies Mining Law, Ordinance 38, and the instructions for their application. Appeals from decisions of mine inspectors may be made to the head of the Mining Service (art. 180, 181, and 182, M. O. 38).

Instructions to be given by Government ordinance concern (a) the solidity of the mining works, (b) protection of the life and the health of the laborers, (c) protection of the surface for the safety of persons and public traffic, and (d) protection from detrimental results of the mining to the public in general (art. 183). These instructions have been embodied in the police regulations of mines and mining made effective October 1, 1930, designated as Statute 1930, No. 341.

Fines and penalties.—The fines and other penalties imposed upon prospectors, concessionaires, surface owners, and interested third parties for infringements of the provisions of the Indies Mining Law and ordinances are covered by articles 184 to 194 of Mining Ordinance 38.

Recent Labor Legislation

1. Government Regulation No. 41 (1953) Concerning Obligations of Enterprises to Report and Instructions for Implementation From the Labor Inspection Service

THE PRESIDENT OF THE REPUBLIC OF INDONESIA

Whereas it is deemed necessary to fix the information to be reported by employers or managers of enterprises regarding actual conditions of their businesses as required by article 2 of the Obligations to Report Enterprises Act, with attention to article 4, paragraph 1, of the said act and to article 89 of the Provisional Constitution of the Republic of Indonesia,

has decided

to fix: Government Regulation Concerning Obligations of Enterprises to Report.

Article 1

Information that must be reported by employers or managers of enterprises concerning the actual conditions of their businesses as stipulated in article 2 of the Obligations to Report Enterprises Act is as follows:

a. Name and address of employer.
b. Name and address of manager of the enterprise.
c. Name and address of the enterprise or section of enterprise.
d. Type of enterprise or section of enterprise.
e. The number of workers employed, classified into:

1. Nationality.
2. Sex.

f. Use or nonuse of power-driven machines (giving information regarding their capacity) in the enterprise or section of enterprise.
g. Date of establishment of the enterprise or section of enterprise.

Article 2

This Government Regulation takes force on the effective date of the Obligations to Report Enterprises Act.

In order that no one may claim ignorance of the contents thereof its promulgation is ordered by its publication in the Lembavan Negara Republic Indonesia.

Made in Djakarta on December 22, 1953.

President of the Republic of Indonesia.
(signed)

Minister of Labor.
(signed)

Promulgated on December 24, 1953.

Minister of Justice.

CHIEF OF THE LABOR INSPECTION SERVICE,

Whereas it is deemed necessary to fix a standard form to be used by employers or managers in reporting actual conditions of their enterprises as required by article 2 of the Obligations to Report Enterprises Act, and since it is also necessary to fix the types of enterprises which are exempted from reporting as stipulated in article 2 of the said act; with attention to article 4, paragraph 2, of article 5 of Law No. 23 of 1953 and to the Government Regulation No. 41 of 1953;

has decided

Article 1

Opening (reopening) of enterprises or sections of enterprises must be reported by filling in the form attached to this decision.

Article 2

Moving of enterprises or sections of enterprises must be reported by letter giving the new address and the date moved.

Article 3

Temporary closing down of enterprises or sections of enterprises must be reported by letter giving the date and the period of the temporary closing down.

Article 4

Dissolution of enterprises or sections of enterprises must be reported by letter giving the date of the dissolution.

Article 5

Employers or managers of enterprises which use no power-driven machines and employ less than 10 workers in number are exempted from obligation to report.

Article 6

This decision becomes operative on the effective date of the Government Regulation Concerning Obligations of Enterprises to Report.

In order that no one may claim ignorance of the contents of this decision it is published in the Supplementary Statute Lead (Tambahan Lembaran Negara).

Made in Djakarta on December 27, 1953.

Chief Labor Inspection Service.
(signed)

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2. Collective Labor Agreements Act No. 21 of 1954 Concerning Collective Labor Agreements Between Workers and Employers

THE PRESIDENT OF THE REPUBLIC OF INDONESIA,

Whereas it is necessary to fix regulations on agreements concerning terms of employment between labor organizations and employers, with attention to articles 36 and 89 of the Provisional Constitution of the Republic of Indonesia: In concert with the Parliament

has decided

to fix an: Act on Collective Labor Agreements Between Workers and Employers.

Article 1

(1) Agreements concerning terms of employment between labor organizations and employers (abbreviated: Collective labor agreements) are agreements, negotiated by one or more workers' organizations which are registered with the Ministry of Labor, with one or more employers or one or more corporate bodies of employers, which in general or exclusively contain terms which must be taken into account in individual agreements.

(2) Collective labor agreements may also be negotiated for contract work or for agreements to carry out a number of services, in which cases the provisions in this act concerning collective labor agreements between workers and employers are applicable.

(3) Any regulation that might bind an employer to employ or reject only certain workers, or which might obligate a worker to work only for an employer of some group, or which requires the group to refuse his services on the basis of religion, nationality, or race considerations or because of political conviction or membership of some association is null and void. The same applies to regulations which are in opposition to laws on public order or public morals and decency.

Article 2

(1) A collective labor agreement should be prepared in authentic or private deed.

(2) The Government regulation shall contain stipulations as to the composition and implementation of such agreements.

Article 3

(1) A trade union of workers or an association of employers negotiating a collective agreement is obliged to inform its members the contents of that agreement. This also applies to an explanation made by both parties on that agreement.

(2) Obligations stipulated in sub (1) also apply to changes made in the agreement and to extension of the validity period thereof.

Article 4

(1) A trade union of workers or an association of employers which negotiates a labor agreement is obliged to see that its members fulfill all the provisions of the agreement which apply to them.

(2) Said trade union of workers or association of employers is responsible for its members only in matters covered by the collective agreement.

Article 5

Workers and employers bound by a collective labor agreement are obliged to fulfill the agreement to the best of their ability.

Article 6

(1) Members of a trade union of workers or of an association of employers which has entered into a collective labor agreement and are thereby involved therein are bound by that agreement during the entire period of its validity.

(2) They are responsible to each of the parties of the collective labor agreement for the adherence to all the regulations fixed therein.

Article 7

(1) Members of a trade union of workers or of an association of employers remain bound by collective labor agreement in spite of loss of their membership.

(2) They are no longer bound if the said agreement is revised after the loss of their membership.

(3) If the validity period of the agreement is extended or considered as having been extended after they have lost their membership, they are only bound until the conclusion of the validity period, without the extension.

Article 8

Dissolution of a trade union of workers or of an association of employers which has concluded a collective labor agreement does not bring any change in the rights and obligations of the individuals involved in the said agreement.

Article 9

(1) Any provision in an individual labor agreement between a worker and an employer contradictory to the collective labor agreement is null and void; in that case provisions of the collective labor agreement are applicable.

(2) Such cases of nullity may always be referred to the court, by either of the parties in collective labor agreement.

Article 10

Even though individual labor agreements contain none of the provisions fixed by the collective labor agreement which is binding on both the worker and the employer, provisions of that collective labor agreement nevertheless take effect.

Article 11

(1) The Minister of Labor, after previously hearing considerations of the parties involved, may rule that an employer bound by a collective labor agreement shall observe all or a part of the provisions thereof when he enters into a private labor agreement with a worker not bound to that collective labor agreement.

(2) Said Minister, after previously hearing considerations of the parties concerned, may also arrange that a collective labor agreement in a certain industrial branch shall also be observed by workers and employers of the same industrial branch who are not yet bound by that collective labor agreement.

(3) Regulations concerning the arrangements referred to in subs (1) and (2) of this article shall be fixed by a Government decree.

Article 12

An employer or an association of employers bound to a collective labor agreement may not conclude collective labor agreement with other trade unions of workers containing lower labor conditions than those in the already existing collective labor agreement.

Article 13

A trade union of workers which has entered into a collective labor agreement may claim indemnity if the other party to the agreement or one of its members fails

to meet the obligations stipulated in the collective labor agreement, not only for damage incurred by the union but also for those suffered by its members.

Article 14

If it is not possible to express the damage in exact money terms, the compensation shall be fixed in terms of a certain reasonable amount of money.

Article 15

(1) In respect to indemnity, penalty regulations may be included in collective labor agreements which deviate from the provisions in articles 13 and 14.
(2) These penalty regulations may be revised by the court if the obligation on which sanction has been fixed has been partly fulfilled.

Article 16

(1) A collective labor agreement may be entered into for a maximum period of 2 years.
(2) The maximum period of extension is limited to 1 year.

Article 17

(1) Both parties to a collective labor agreement may for compelling reasons request the court for cancellation of the whole or part of the agreement.
(2) Any regulation in the agreement which would curtail the provisions in sub (1) or render same invalid is null and void.

Article 18

If a collective labor agreement is negotiated for a certain period, it is considered, unless otherwise specified, to continuously extend for that period but not exceeding 1 year, except when it appears that there is a desire for its termination. For this purpose, notification must be given at least 1 month in advance.

Article 19

Intention to terminate collective agreement must be made known to all parties concerned by registered letter.

Article 20

Unless otherwise specified in the collective agreement, it ceases to remain in force for all parties concerned as a result of such announcement for the termination thereof.

Article 21

Collective labor agreements in force on the day this act takes effect remain in force until the expiration of their validity period or until they are revised; thereafter regulations of this act must be complied with.

Article 22

This act may be cited as Collective Labor Agreement Act of 1954.

Article 23

This act takes effect on the day of its promulgation.

Made in Djakarta on May 28, 1954.

President of the Republic of Indonesia
(signed)

Minister of Labor
(signed)

Promulgated in Djakarta on June 12, 1954.
Minister of Justice.

Company Tax Law and Relevant Decree

A. COMPANY TAX LAW OF 1925, AS AMENDED [1]

Chapter 1

Object, Amount, and Liability of Tax

Article 1.—(1) Under the title of "Vennootschapsbelasting" (Company Tax) a tax is levied:

1st, on the profit of limited liability companies, limited share partnerships, other companies or associations of which the capital is wholly or partly divided into shares, cooperative associations, and mutual insurance companies, which are domiciled within Indonesia;

2d, on the profit of associations of which the capital is not divided into shares and foundations, domiciled within Indonesia, from enterprises other than those exclusively for the promotion of a general social interest;

3d, on the profit of bodies not domiciled within Indonesia (including all companies and associations of which the capital is wholly or partly divided into shares) from enterprises carried on within Indonesia by a fixed establishment here, from immovable property situated or established within Indonesia as well as from debts used outside the enterprise which—insofar as the capital sum is concerned—are insured by mortgage established on such property.

(2) It is judged according to the circumstances whether a company, association, corporation, foundation, or body is domiciled within Indonesia.

(3) By enterprise is also understood transactions, activities, or services of any nature.

Article 1a.—From the tax is exempted the profit:

a. Of the bodies referred to under article 1, paragraph 1, 3d, obtained from the marine transportation of persons and goods between harbors situated within and without Indonesia; insofar as the above-mentioned transportation is effected by vessels sailing under a foreign flag, provided that in the country of that foreign flag a reciprocal exemption of tax is granted for profits obtained in international traffic by vessels sailing under Indonesian flag;

b. Of the bodies referred to under article 1, paragraph 1, 3d, obtained from the air transportation of persons and goods between airports situated within and without Indonesia, provided that in the country of domicile a reciprocal exemption of tax is granted for profits obtained in international traffic by aircraft used in the enterprise of bodies domiciled within Indonesia;

c. Of the cooperative associations domiciled within Indonesia, organized according to the regulations in *State Journal 1927* No. 91 and in *State Journal 1949* No. 179 insofar as established before January 1, 1950, over the years ending before January 1, 1955, and, insofar as established after December 31, 1949, over the 5 consecutive years following the establishment; the exemption also includes the period prior to the establishment commencing on the date of submitting the deed of establishment on the terms of article 7 of the last-mentioned ruling.

Article 2.—The tax is levied on the book year or, failing that, on the calendar year.

Article 3.—(1) By profit is understood the sum of the benefits which in whatever name and in whatever form are obtained net from enterprise and from capital used without enterprise.

(2) These benefits also include the benefit obtained from alienation of assets which were not destined for sale, and, generally, any benefits obtained from such assets—even after cessation of the enterprise.

(3) In case of liquidation the increase of value contained in the constituent parts of the property which are transferred to the legal claimants is regarded as a benefit within the meaning of this article.

(4) The stipulations of paragraphs 2 and 3 are not applied if a request to that effect has been made by the management of the company, the association, the corporation, or the body, provided that:

a. The transfer comprises the entire enterprise or one or more of the enterprises or one or more independent enterprise parts;

b. The later levying of the tax on the profit not taken into account is assured;

c. In the cases referred to in paragraph 2, moreover, provided that the transfer takes place for at least $\frac{9}{10}$ part against the granting of shares in and/or the taking over of the acquittance of debts to the following:

1. The company, association, corporation, or body which takes over;
2. A body holding at least $\frac{9}{10}$ part of the shares of the company, association, corporation, or body which takes over;
3. A body of which the shares are held for at least $\frac{9}{10}$ part by the company, association, corporation, or body which takes over;
4. A body of which the shares are held for at least $\frac{9}{10}$ part by the body which holds at least $\frac{9}{10}$ part of the shares of the company, association, corporation, or body which takes over.

Article 4.—(1) For the calculation of the net amount of the benefits referred to under article 3 the gross amount of those benefits is reduced by the costs of obtaining, collecting, and maintaining the same.

(2) Formation expenses and costs of capital extension are allowed for deduction in accordance with the deduction shown in the bookkeeping.

[1] This translation of the Company Tax Law of 1925 incorporates amendments made through 1952.

(3) From the amount of the gross benefits from enterprise is also deducted the amount which can be depreciated on expenditures by virtue of their limited utiliarian duration as referred to in article 5, paragraph 1, as well as on expenditures as referred to in the first paragraph of this article which pertain to several years—with due observance of the regulations to be set for that purpose by the Minister of Finance.

(4) With regard to the depreciation on expenditures for investments complying with the policy of the Government regarding the promotion of the prosperity of Indonesia, the Minister of Finance can set regulations which deviate from those referred to in the preceding paragraph.

(5) Further is deducted all that must be depreciated according to sound commercial usage on expenditures for participation because of a proved permanently decreased usability, as well as on bad debts relating to the enterprise.

(6) From the amount of the gross benefits from capital used without the enterprise is dedncted whatever is necessary for depreciation on account of the expiration of rights to which a time limit has been set.

Article 5.—(1) Expenditures for the purchase, institution, improvement, or alteration of land, buildings, machinery, tools, and other assets nsed for the carrying on of the enterprise, expenditures for taking over, extension, improvement, or alteration of the enterprise and other similar expenditnres are not deducted unless those expenditures are to be considered as normal daily expenses of the enterprise.

(2) No deduction is allowed:

1st, for the purpose of forming or increasing a reserve fund;

2d, for interest on own capital;

3d, for interests on borrowed money and compensations for the benefit of assets supplied in whatever form for use or consumption when, *either* by virtue of the fact that those interests and compensations are enjoyed directly or indirectly by one or more persons or bodies which are entitled, separately or together, directly or indirectly, to more than half of the subscribed capital, *or* it has to be assnmed by virtue of other circnmstances that the legal transactions of which those interests and compensations are the consequence are not in accordance with the usual bnsiness method for supplying money and other assets in case no such special relation exists between parties;

4th, for the tax levied here on the profit or for tax levied outside Indonesia in whatever form on the profit obtained here;

5th, on account of profit distributions—including distributions out of any surplus of the enterprise or of any part of the enterprise—irrespective of the name and form wherennder same are made and whether same are due or not, with the exclusion of distributions to the state otherwise than as a shareholder and of distributions which are granted to others than directors, attorneys, managing directors, or managing partners for labor performed.

Article 6.—(1) The profit of a body not domiciled within Indonesia which carried on an insurance enterprise here as well as abroad is put for the enterprise carried on here, insofar as the life insurance branch is concerned, at 5 percent and for the remainder at 10 percent of the amount which has been received as premia and capital from persons insured residing or domiciled within Indonesia or on account of risk incurred within Indonesia. No deduction is allowed for brokerages, commissions, rebates, reinsurance, or other costs.

(2) If such is requested in the return, the profit is put, in deviation from paragraph 1, at the sum which is to the entire profit from the insurance enterprise as the amount received in the same year as premia and capital, as referred to in paragraph 1, to the entire amount which has been received in that year as premia and capital from persons insured, provided that the data required for the settlement of the assessment have been submitted with the return and the correctness of the data, if so required, is supported by submitting documents.

(3) For the application of the preceding paragraph the entire profit is determined according to the articles 3 through 5.

Article 7.—If a loss is calcnlated by applying the regulations regarding the determination of the profit over any year, this loss is deducted from the profit over the 4 following years commencing with the first of those years.

Article 8.—Not included in the benefits referred to in article 3 of a company, association, corporation, or foundation as referred to in article 1, paragraph 1, 1st or 2d, is that which is obtained from enterprises carried out not within Indonesia by a fixed establishment there, from immovable property not situated or established within Indonesia as well as from debts which—insofar as the capital sum is concerned—are insured by mortgages on such property.

Article 9.—(1) Not included in the benefits referred to in article 3 is that which is enjoyed as profit distributions as referred to under 5th and as interests and compensations as referred to under 3d of the 2d paragraph of article 5.

(2) The stipulation of the 1st paragraph is only applicable, in case profit distributions are enjoyed in the capacity of shareholder or of holder of other certificates of titles, if and insofar as this holdership represents a participation.

Article 10.—(Canceled.)

Article 11.[2]—The tax amounts to 10 rnpiah for each full amount of 100 rnpiah.

Article 12.—(1) The tax is due by the company, the association, the corporation, the foundation, or the body.

(2) The managing directors and managing partners as well as the representatives within Indonesia are personally and jointly responsible therefor. Moreover, in case of dissolution or liqnidation the persons in charge of the liquidation and their representatives within Indonesia are personally and jointly responsible therefor. The responsibility ceases when the persons mentioned above, when summoned for payment, prove to the satisfaction of the Head of the Tax Service (Kepala Djawatan Padjak) that they have been unable in their capacity to take care of the payment.

(3) Such proof is given in writing and submitted to the Head of the Inspection of Finance (Kepala Inspeksi Keuangan).

(4) The decision of the Head of the Tax Service (Kepala Djawatan Padjak), if in the negative, is motivated.

(5) Copy of the decision is sent by registered mail to the interested party.

(6) This decision is subject to appeal to the Board of Appeal in Tax Matters at Djakarta within 30 days after dispatch of the copy, in the manner stipulated in the regnlation of the appeal in tax matters.

(7) The collection of the tax is suspended regarding the person in whose favor a proof as referred to in paragraph 3 has been submitted:

a. After that submission until the Head of the Tax Service (Kepala Djawatan Padjak) will have decided on the subject and, in case of a negative decision, during the period of 30 days referred to in paragraph 6, unless the interested party has stated in writing to the Head of the Inspection of Finance (Kepala Inspeksi Kenangan) within that period that he will not appeal on the decision;

b. In case of appeal, until the Board of Appeal will have decided on the subject:

one and the other, however, on the understanding that the Minister of Finance, under cancellation to that extent of the suspension, can authorize to proceed with the measures for collecting the tax due, insofar and in the manner as deemed necessary by him, if in his view

[2] Emergency Law No. 2 of 1952 established a sliding scale of tax rates, in deviation of article 11, for the years closing in 1951. In an explanatory note to this emergency law it was stated that the previous practice of establishing fixed surtaxes (equal percentage increases being added across the board to the basic tax) was discontinued and that it was intended to establish rates separately for each year.

the suspension is abused by the interested party to perform transactions which jeopardize the possibility of collecting the tax.

(8) In the managing directors, managing partners, liquidators, and representatives referred to in paragraph 2 are included all who, by or after the time the tax debt originated, were managing directors, managing partners, liquidators, and representatives even insofar as they have resigned or withdrawn, have given account or have received discharge.

Chapter II

Bookkeeping and Returns

Article 13.—(1) A bookkeeping must be conducted within Indonesia by or on behalf of the management of companies, associations, corporations, foundations, and bodies which carry on an enterprise the profit of which is subject to tax by virtue of article 1, paragraph 1, in such a manner that the profit taxable according to articles 1 through 9 can be calculated therefrom independently.

(2) The bookkeeping referred to in the 1st paragraph of this article should be kept in terms of Indonesian currency. It must contain a continuous record of cash at hand as well as statements of debtors and creditors brought regularly up to date. At the end of each book year or, failing that, at the end of each calendar year the bookkeeping should be closed by drawing up a profit-and-loss statement and relative balance sheet.

(3) The bookkeeping should be kept in the Indonesian language using Latin characters and the usual figures (Arabic ciphers). The Minister of Finance can allow under terms to be set by himself—either generally or in special cases—the use of other languages and ciphers in the bookkeeping.

(4) The bookkeeping and the supporting documents must be kept for 10 years.

Article 14.—(1) The management of the company, the association, the corporation, the foundation, or the body is held upon request to allow inspection of the bookkeeping and the supporting documents, together with other annotations concerning the enterprise, to the Head of the Inspection of Finance (Kepala Inspeksi Keuangan), to one or more officials charged with the inspection by the Head of the Inspection of Finance (Kepala Inspeksi Keuangan) or the Head of the Tax Service (Kepala Djawatan Padjak) or to one or more experts or interpreters assigned in accordance with article 43.

(2) The Minister of Finance can grant, wholly or partly, exemption from the obligation referred to in the 1st paragraph.

(3) By the Minister of Finance further regulations are set concerning the inspection of bookkeeping and the supporting documents and the place where such inspection will be held.

Article 15.—(1) For the settlement of the assessment the management of the company, the association, the corporation, the foundation, or the body can be invited to file a return by the issue of a return form by registered mail.

(2) A return form is issued to the management which of its own accord reports for filing a return with the Head of the Inspection of Finance (Kepala Inspeksi Keuangan).

Article 16.—(1) The return consists of a report of:

1st, the data from which it appears whether and, if so, to which amount profit has been obtained;

2d, further particulars which may be necessary or useful for the implementation of the ordinance.

(2) The return forms are determined by the Minister of Finance.

(3) The responsibility for the issue of the return forms is assigned to the Head of the Inspection of Finance (Kepala Inspeksi Keuangan).

(4) The date of issue is stated on the form.

Article 17.—(1) The management of the company, the association, the corporation, the foundation, or the body to which a return form has been issued is obliged to fill out the return form clearly, definitely and without reservation, truthfully and to sign same.

(2) The return can be filed in the name of the management by an attorney authorized thereto in writing, provided that the authorization is submitted with the return.

Article 18.—(1) The return form must be filed within 30 days after issue with the office of the Head of the Inspection of Finance (Kepala Inspeksi Keuangan).

(2) If so requested a receipt is issued free of charge.

(3) New return forms will be issued free of charge for forms which have been lost.

Article 19.—(1) With the return must be submitted:

1st, copy of the balance sheet referred to in article 13, paragraph 4, with supporting profit-and-loss statement and the annual report to shareholders, members, or other interested parties, of the company, the association, the corporation, the foundation, or the body over the year whereon the tax is levied;

2d, copy of the deeds of establishment and of alteration, unless these documents have already been submitted with a previous return.

(2) The copies must be certified by the management of the company, the association, the corporation, the foundation, or the body by a statement thereon, signed or certified.

Article 19a.—(1) If the data referred to in article 16, paragraph 1, under 1st, are not known in full to the management of the company, the association, the corporation, the foundation, or the body within the period referred to in article 18, the profit obtained must be estimated to the best of their knowledge and a provisional return be submitted accordingly within the above-mentioned period.

(2) The issuing referred to in article 15, paragraph 1, will be in duplicate for that purpose.

(3) In special cases the period mentioned in paragraph 1 can be lengthened with a maximum of 2 months by the Head of the Inspection of Finance (Kepala Inspeksi Keuangan).

(4) The stipulations of article 16, paragraph 1, article 17, and article 18, paragraph 2, are applied accordingly for that purpose.

(5) The return must in that case be filed within 2 months after the approval of the annual reports or, if this approval does not occur, before the end of the following year at the latest.

(6) The period referred to in the preceding paragraph can be extended by the Head of the Inspection of Finance (Kepala Inspeksi Keuangan).

Chapter III

Assessment

Article 20.—The companies, associations, corporations, and associations referred to in article 1, paragraph 1, 1st and 2d, are assessed at the place where same are domiciled.

Article 21.—(1) The bodies referred to in article 1, paragraph 1, 3d, are assessed at the place where the enterprise is carried on exclusively or mainly or where the immovable property is situated.

(2) The Minister of Finance will set regulations concerning the place of assessment for bodies for which either no or more than one place of assessment is indicated by the stipulations of the preceding paragraph.

Article 22.—(1) The assessments are determined by the Head of the Inspection of Finance (Kepala Inspeksi Keuangan).

(2) The management of the company, the association, the corporation, the foundation, or the body can be invited by the Head of the Inspection of Finance (Kepala Inspeksi Keuangan) unabated the obligation to allow inspection of the bookkeeping and the supporting documents in pursuance of article 14, to supply further information orally or in writing for the settlement of the assessment and to allow inspection of other documents which can serve to support the return or further statements.

Article 23.—(1) If, after the issue of a return form, despite a written reminder, it has failed to file a return or, if the obligations resulting from the articles 13, paragraph 3, and 14, paragraph 1, have not been complied with, the tax to be included in the assessment is increased by 100 percent.

(2) The return form issued in the name of the company, the association, the corporation, the foundation, or the body is considered to have been received by the management, and the bookkeeping and the supporting documents of which inspection is requested are considered to be in the possession of the management unless the contrary has been made plausible.

Article 24.—(1) A provisional assessment to the amount deemed correct by the Head of the Inspection of Finance (Kepala Inspeksi Keuangan) can be made, also for the still current year:

1st, in case of dissolution, cessation, liquidation, or bankruptcy;

2d, in case of cessation or considerable reduction of the enterprise or in case of alienation of property situated or established within Indonesia which, according to the stipulations of the Civil Code, are immovable or which would have to be considered as such according to those stipulations;

3d, on account of the profit of bodies not domiciled within Indonesia which carry on an enterprise within Indonesia only temporarily.

(2) The provisional assessment is only considered an assessment within the meaning of this ordinance with respect to the collection and the stipulations of chapter IV.

(3) The Head of the Inspection of Finance (Kepala Inspeksi Keuangan) is authorized to reduce the provisional assessment ex officio or to make an additional provisional assessment if it appears that the provisional assessment made is incorrect.

Article 25.—If a provisional return as referred to in article 19a is filed, a provisional assessment can be imposed in accordance with the provisional return.

(2) If afterwards the return is filed and the tax due in accordance with this return, after a reduction of 25 percent, appears to be higher than the tax included in the provisional assessment, an interest of one-half of 1 percent is due on the total difference between the tax according to the return and the provisional assessment for each month—a part of a month being counted as a full month—which has elapsed between the time when the provisional return should have been submitted and the time on which the return has been filed.

(3) The interest referred to in the preceding paragraph is also due if the provisional assessment referred to in paragraph 1 has not been imposed on account of a loss reported on the provisional return or in the absence of a provisional return; in this case the interest is calculated on the amount due according to the return submitted.

(4) Failing a return, the assessment imposed with due observance of article 23 and the time of the determination thereof are the bases for the calculation of the interest.

(5) If the assessment referred to in the preceding paragraph is changed by the application of article 28, 45, or 46 or is reduced by the Board of Appeal in Tax Matters, the interest is recalculated accordingly.

(6) Pending final determination of the assessment, a provisional assessment can be imposed after a return has been filed or, if a provisional assessment by virtue of paragraph 1 has already been imposed, a supplementary provisional assessment according to that return can be imposed.

(7) The provisional assessment is considered an assessment within the meaning of the ordinance only with respect to the collection.

Article 26.—(1) If provisional assessments have been imposed in accordance with the stipulations of article 24 or article 25, an amount equal to that of the provisional assessment is not collected under the assessment determined later. If the assessment determined later is lower than the provisional assessment, the former is not collected at all and the latter is reduced by the difference.

(2) If the assessment determined later is equal to the provisional assessment or lower than the latter, the management of the company, the association, the corporation, the foundation, or the body is informed by dated notice.

Chapter IV

Objections to the Assessment

Article 27.—(1) *Within 3 months* after the date of the assessment form or of the notice referred to in article 26, paragraph 2, objections to the assessment can be filed.

(2) The management of the company, the association, the corporation, the foundation, or the body files a letter of protest with the Head of the Inspection of Finance (Kepala Inspeksi Keuangan) for that purpose.

(3) The letter of protest can be filed in the name of the management by an attorney authorized thereto in writing provided that the authorization is submitted with the letter of protest.

(4) If so requested a receipt for the letter of protest is issued free of charge stating the date of filing the letter of protest.

(5) In case of filing by mail, the date of the postage stamp of the office of dispatch is considered to be the date of filing the letter of protest.

(6) The period of 3 months is not compulsory if it is proved that that period could not be complied with owing to special circumstances.

Article 28.—(1) The Head of the Tax Service (Kepala Djawatan Padjak) decides on the letter of protest.

(2) If the letter of protest is acceptable, the Head of the Tax Service (Kepala Djawatan Padjak) decides concerning the amount on which the assessment should be determined taking into account all incorrectnesses in the settlement of the assessment which have come to his notice.

(3) The Head of the Tax Service (Kepala Djawatan Padjak) is authorized to increase the assessment by his decision.

(4) The decision, if wholly or partly rejecting the objections, is motivated.

(5) Copy of the decision is sent to the protester by registered mail.

Article 29.—The protester who has objections to the decision taken on his letter of protest can appeal to the Board of Appeal in Tax Matters at Djakarta within 3 months after the copy of the decision has been dispatched in the manner stipulated in the regulation of the appeal in tax matters.

Article 30.—If no return has been filed or if the documents have not been submitted with the return which should be submitted therewith according to article 19 or, if the obligations resulting from article 13, paragraph 3, and article 14, paragraph 1, are not complied with, the assessment as determined by virtue of the decision of the Head of the Tax Service (Kepala Djawatan

Padjak) is maintained by the Board of Appeal insofar as the incorrectness thereof has not come to the notice of the Board.

Chapter V

Additional Assessment

Article 31.—(1) If it appears from data becoming known later that too low an assessment has been imposed, an additional assessment can be imposed if, since the end of the year over which the tax is levied, 5 years have not elapsed.

(2) Under similar conditions an additional amount can be imposed if the assessment imposed has wrongly been decreased or canceled or if the Head of the Inspection of Finance has wrongly decided not to impose an assessment.

Article 32.—(1) The additional assessments are determined by the Head of the Inspection of Finance.

(2) Before imposing an additional assessment the Head of Inspection of Finance gives the management of the company, the association, the corporation, the foundation, or the body the opportunity to give such elucidation as it may deem fit in connection with what has appeared.

Article 33.—(1) The tax to be included in the additional assessment is increased by 100 percent.

(2) This increase is not enforced if the additional assessment is imposed by virtue of written information supplied by the management of the company, the association, the corporation, the foundation, or the body of its own accord, unless same were supplied after the management had been invited to supply information or to allow inspection of the bookkeeping.

(3) Nor is the increase enforced if and insofar as the additional assessment is imposed as a consequence of an erroneous estimate by the management referred to in the preceding paragraph, which may be assumed to have been made in good faith.

Article 34.—Objections to an additional assessment may be filed within 3 months after the date of the assessment form with the Board of Appeal in tax matters at Djakarta, in the manner as stipulated in the regulation of the appeal in tax matters.

Chapter VI

Collection

Article 35.—The assessment is recorded in a ledger to be established by the Head of the Inspection of Finance and the management of the company, the association, the corporation, the foundation, or the body is informed through the care of the Head of the Inspection of Finance by the issue of a dated assessment form.

Article 36.—(1) The assessment must be paid within 1 month after the date of the assessment form.

(2) The Head of the Inspection of Finance may grant an extension of payment, with due observance of regulations to be issued by the Minister of Finance, in which case the amounts for which the extension has been granted are subject to an interest due of one-half of 1 percent for every month—part of a month to be counted as a full one—from the date payment is due to the date of actual payment.

Article 37.—The assessment is immediately collectible:

1. In the cases mentioned under 1st, 2d, and 3d of the first paragraph of article 24;

2. In case of seizure of the properties of the company, the association, the corporation, the foundation, or the body, or of those who are responsible for the tax according to article 12.

Article 38.—The obligation to pay is not suspended by submission of objections to the assessment.

Article 39.—(1) "s'Lands Kas" (i. e., the Land Law) has for the tax priority on the properties of the company, the association, the corporation, the foundation, or the body as well as on the properties of those who are responsible for the tax according to article 12.

(2) The privilege granted by paragraph 1 precedes all others with the exception of the preferential claims mentioned in articles 1139 Nos. 1 and 4 and 1149 No. 1 of the Civil Code, and articles 80 and 81 of the Commercial Code, of lien on crops, and of the rights of pawning and of mortgaging under the stipulations of the Civil Code which were established before the end of the year over which the tax is levied or, in case of establishing such rights after that date, insofar as a certificate has therefor been issued as referred to in the fourth paragraph.

(2a) With respect to grounds owned under an Indonesian right, the privilege established by the first paragraph does not precede the "credit lien" established before the end of the year over which the tax is levied, or in case of establishing the lien after that date, insofar as a certificate referred to in the fourth paragraph has been issued therefor. In regard of land and properties pawned under the "adat" right the privilege of " 's Lands Kas" does not precede the right of the pawnholder to the payment of the pawn-sum.

(3) The privilege expires 2 years after the date of the assessment form or, if within that period a writ of demand has been served, 2 years after the last writ has been served. If an extension of payment has been granted the period is extended by right by the period of the extension.

(4) Before or after the establishment of a mortgage within the meaning of the Civil Code the mortgager can request a certificate stating that the mortgage precedes the privilege for the tax over years preceding the establishment of the mortgage. The certificate is applied for with the Head of the Inspection in whose resort the mortgager resides or, if he does not reside within Indonesia, within whose resort the immovable property is situated or established or the ship has been registered. The Head of the Inspection issues the certificate if no tax is privileged over the mortgage or if in his opinion there is sufficient guaranty that the tax privileged over the mortgage will be paid. In the certificate the years to which it pertains are mentioned. In case this certificate is refused, the mortgager can submit his objections to the Head of the Tax Service who, if he is of the opinion that sound reasons exist, may as yet issue such a certificate. To "credit lien" this provision applies accordingly.

Article 40.—(1) The stipulations of this ordinance as to the liability, the responsibility, and the privilege do not only pertain to the tax, but also to the interest and the costs of prosecution.

(2) The claims for payment of the tax and of the interest expire after 5 years, counted from the end of the year over which the tax is levied.

Chapter VII

Special Provisions

Article 41.—Where this ordinance uses the word management, this also includes the managing partners, the representatives within Indonesia as well as—in case of dissolution or liquidation—the persons in charge of the liquidation and their representatives within Indonesia.

Article 42.—(1) Anyone who, in this country, is in the service of or working for companies, associations, corporations, foundations, or bodies as referred to in article 1 or, in case of dissolution or liquidation, in the service of or working for the persons in charge of the liquidation can be assigned by the Head of the Tax Service as their representative within the meaning of the preceding article,

after having had the opportunity to bring forth his objections.

(2) If other persons are assigned than those mentioned in article 12, but of whom it must be assumed, by virtue of their relation to the company, the association, the corporation, the foundation, or the body, that they have been or are able to see to the payment of the tax due, they are thereof informed in that assignment, whereby at the same time the provisions of this ordinance regarding the responsibility become applicable to them.

Article 43.—(1) The Head of the Tax Service can assign experts and interpreters for the inspection of books and other documents.

(2) Prior to accepting his assignment the expert or interpreter takes the oath or makes the vow in the hands of the Head of local government that he will perform the activities to be assigned to him honestly, accurately, and to the best of his knowledge.

(3) They are entitled to a compensation according to regulations to be set by the Minister of Finance.

Article 43a.—(1) Bankers, cashiers, holders of administrative offices, and other persons or institutions, who by virtue of their profession or enterprise are wont to take money or other capital assets of third parties into custody or under their management, are obliged upon the request of the Head of an inspection or of a government tax audit office, within a term to be set by them:

1. to supply the applicant or the officials of the tax service to be assigned by him with all information which the above officials will deem necessary for a proper determination of the profit of the company, association, corporation, foundation, or body mentioned in the request; and

2. to allow the applicant or the officials of the tax service to be assigned by him an inspection of all books and documents the inspection of which the officials in question will deem necessary for a proper disposal of their task.

(2) If there may be a commitment to secrecy regarding data concerning which information or inspection is requested by virtue of the preceding paragraph, this commitment is lifted by the request insofar as necessary, in order to comply with the request.

Article 44.—(1) It is forbidden to anyone to divulge further than is necessary for the fulfillment of his function or employment anything he may find out or learn in his function or employment in the execution of this ordinance or in connection therewith, regarding the business or activities of no matter whom.

(2) The prohibition of this article also applies to the experts and interpreters referred to in the preceding article.

Article 45.—Incorrect assessments are reduced or canceled ex officio by the Head of the Tax Service.

Article 46.—The Minister of Finance is authorized to grant a whole or part remission of the increases by virtue of articles 23 and 33 on grounds of error or pardonable neglect.

Chapter VIII

Penalties

Article 47.—He who willfully files an incorrect or incomplete return as referred to in chapter II is punished with imprisonment of maximum 6 months, if a loss to the country can result therefrom.

(2) The provision of the first paragraph shall not apply if the filer as yet furnishes a correct and complete return of his own accord, as long as the Public Prosecutor has not been informed, provided that:

Either the assessment has not yet been determined and the Head of the Inspection of Finance has not yet made objections to the return or has invited the management of the company, the association, the corporation, the foundation, or the body to give information or to allow inspection of the bookkeeping or other documents;

Or the assessment has been determined too low.

Article 48.—With imprisonment of maximum 2 years is punished:

1. He who willfully submits or presents for inspection a false or falsified document as if it were genuine and unfalsified to the Head of the Inspection of Finance, to an official charged by the Head of the Inspection of Finance or by the Head of the Tax Service with the inspection of the bookkeeping and the supporting documents, or to an expert or interpreter assigned in accordance with article 43;

2. He who willfully furnishes false or falsified written information in reply to a request as referred to in article 43a.

Article 49.—(1) He who willfully violates the secrecy enjoined by article 44 is punished with imprisonment of maximum 6 months or a fine of maximum 600 rupiah.

(2) He who must be blamed for violation of the secrecy is punished with detention of maximum 3 months or a fine at the most of 300 rupiah.

(3) There will be no prosecution but upon the complaint of the person affected by the violation of the secrecy.

Article 49a.—(1) He who willfully fails to completely comply with the obligation contained in article 43a, or who by acts or neglects willfully causes or willfully cooperates to the effect that this obligation is not or not completely complied with, is punished with imprisonment of maximum 3 months or a fine of maximum 5,000 rupiah.

(2) He who must be blamed for the fact that the obligation mentioned in the preceding paragraph has not been fully complied with is punished with imprisonment or detention of maximum 1 month or a fine of maximum 1,000 rupiah.

Article 50.—The facts penalized by this ordinance are considered as offenses.

Article 51.—If a verdict by virtue of article 47 has become irrevocable, additional assessment of tax takes place even after the expiration of the period mentioned in article 31. Article 32, paragraph 2, does not apply in this case.

Chapter IX

Transitional and Final Provisions

Article 52.—(1) The tax is levied for the first time over the year that ends after June 30, 1924.

(2) For the application of article 7, years which have terminated before July 1, 1924, also will be taken into account.

Article 53.—Counting from January 1, 1925, the provisions of the revised ordinance on the income tax 1920 are canceled, except for the tax due over tax years preceding that date, insofar as same pertain to the tax of the companies, associations, corporations, foundations, and bodies referred to in article 1.

Article 54.—Simultaneous with the introduction of this ordinance the Royal Decree of July 3, 1879, No. 27 (*State Journal* No. 267) as it reads as per the text publicly announced by Royal Decree of May 9, 1916, No. 21 (*State Journal 1917*, No. 171) and has been amended since, comes into effect for the company tax.

Article 54a.—The Minister of Finance is authorized to promulgate regulations necessary for the amplification and execution of this ordinance.

Article 55.—(1) This ordinance comes into effect as from the day subsequent to the day of its promulgation.

(2) This ordinance can be referred to as "Ordinance on the Company Tax 1925".

B. DEPRECIATION DECREE,[3] COMPANY TAX LAW

Definition of Conceptions

Article 1

In this decree it is understood by:

1. *Ordinance:* The Ordinance on the Company Tax, 1925;
2. *Body:* The corporation, association, company, foundation, or the body which is carrying on an enterprise in Indonesia the profit of which is subject to company tax;
3. *Expenditures:* Such expenditures which may be depreciated by virtue of what has been stipulated by article 2 of this decree;
4. *Period:* The book year or, failing that, the calendar year or the part of the calendar year over which the tax is levied:
5. (a) *Period 1950:* The period wherein March 11, 1950, falls;
   (b) *Period 1951:* The period succeeding the period 1950;
   (c) *Period 1952:* The period succeeding the period 1951;
6. *Year:* A period of 12 consecutive calendar months.

Depreciation on Expenditures

Article 2

With due observance of the stipulations of this decree are depreciated at the charge of the period 1952 and subsequent periods:

(1) Expenditures as defined in article 5, paragraph 1, of the Ordinance, insofar as these expenditures have a limited utilitarian duration, as well as

(2) Expenditures as meant by article 4, paragraph 1, of the Ordinance which pertain to several years.

Explanation:

Article 2 is based on the fundamental principle that, fiscally, by depreciation is to be understood a distribution of "expenditures" made in one lump sum for a couple of years to the individual years of that period.

The legislator has deliberately deviated from the business point of view—which understands by depreciation the expression, according to a certain method, of the annual decrease in value of lasting assets—by introducing this depreciation conception in article 4, paragraph 3, of the Ordinance.

Consequently, the extent of the depreciation is no longer made conditional in this decree on material facts (as e. g., the "decrease in value for use 'of' matters") but merely on the formal regulations included in the following articles. Only indirectly do material facts still play a part: According to the text of the Ordinance the limited utilitarian duration of the expenditures serves as a lead for the contents of the regulations to be set for depreciation and this utilitarian duration is—as a rule—related to the life of "matters" acquired by those expenditures.

The attention is further drawn to the following aspects of the fundamental principle of fiscal depreciation:

(1) The complete fiscal return of the expenditures, i. e., that never more but also never less than the total real amount of the expenditures is attributed to the individual years concerned. This has been shown in the text of article 2 by choosing the words "expenditures . . . are depreciated," *rather than* "on expenditures . . . is depreciated."

The possibility, which still exists, that expenditures will indirectly not be returned in case of unrecoverable losses despite an extended period for loss carryover does not detract anything from this principle.

An important consequence of this complete return is that the depreciation percentage can never have any impact on the total profit determination computed over a sufficiently long period. The percentage chosen has an impact on the distribution of this total profit to the individual years, but ultimately the total of the profit is not affected. Consequently, the depreciation system embodied in the following articles need not to be particularly refined but can be more adapted to easy, practical feasibility than to an—yet always illusive—accurate adaptation to the material facts.

(2) The distinction between pure "capital expenditures" (article 5, paragraph 1, of the Ordinance) and "exploitation expenditures pertaining to several years" (article 4, paragraph 3, of the Ordinance) has lost its significance for the depreciation, as expenditures of either nature are now being handled exactly the same. For it is the same to an enterprise whether it gets rid of a periodical cost by one lump-sum payment or increases its productive capacity by such a lump-sum payment made for a lasting asset.

(3) Finally, the relating of the depreciation to expenditures rather than to matters results in the coming to an end of putting the question whether a matter is used—whether or not "already" or "still"—in the enterprise, which question caused so much discussion in the past. E. g., expenditures for a not yet producing plantation can be taken into account for proportionate distribution; for their limited utilitarian duration is definitely established at once and this is the only criterion in this respect.

Adaptation and Classification of Expenditures; Duration of Depreciation

Article 3

(1) With respect to assets extant at the start of the period 1950, the amount of the expenditures referring to these assets is put at the "enterprise value" as meant by article 2, paragraph 3, of the "Adaptation Decree Company Tax 1953," deducted with what has been depreciated on same at the charge of the periods 1950 and 1951.

(2) The expenditures made during the periods 1950 and 1951, with the exclusion of those for investments meant by article 9, paragraph 3, are put at the balance left thereof after deduction in accordance with the preceding paragraph.

(3) The expenditures meant by the preceding paragraphs of this article are depreciated in equal parts effective the period 1952, over a minimum 8 and maximum 20 years.

Explanation:

Since, as outlined under article 2, the depreciation system has to comply primarily with the requirement of a practically easy feasibility, it goes without saying that the number of different depreciation percentages applicable to expenditures of a different nature are restricted as much as possible.

Insofar as the expenditures are concerned made prior to the start of the period 1952 the following should, in addition, be taken into account:

Under the "free depreciation" system effective prior to the latest change in the Ordinance (article 4, paragraph 2, *old*) it was sufficient, for the fiscal admissibility of the depreciation at the charge of any period, that the

[3] Decree of the Ministry of Finance regarding treatment of depreciation in relation to the Company Tax Law; issued July 9, 1953, with accompanying explanation.

following be definitely established: (a) The total amount of the acquisition costs spent in this period and in periods preceding thereto; (b) the total amount of the depreciations fiscally accounted for over those preceding periods.

Every amount of depreciation was fiscally acceptable provided the limits of the difference between the amounts sub 1 and 2 were not exceeded. The depreciation, therefore, did not need to be attributed to each individual asset.

As a consequence of this system, it will therefore be impossible in many cases to determine the fiscal rest-value of an individual asset or a group of similar assets at the start of the period 1952.

For these reasons article 3 treats the conglomerate of the balances of expenditures not yet depreciated at the start of the period 1952 as a uniform mass, which—equally divided—is charged to the profits of this and subsequent periods.

The wide choice regarding the number of years over which this distribution will be applied offers each body the opportunity to take into account the different utilitarian duration of the individual expenditures.

The second paragraph empowers the body to lift out from the above-referred-to mass certain expenditures made during the periods 1950 and 1951 and to apply thereto the more flexible depreciation regulation of article 9.

For expenditures made after the start of the period 1952—except for those which are considered for the regulation of article 9—depreciation in conformity with the solution of article 3 would of course be too arbitrary.

Therefore, a system of depreciation regarding these expenditures has been devised per group and subgroup taking into account the requirement of easy feasibility already mentioned above; this system has been laid down in article 4.

Paragraph 3 of article 3: It is the intention that the depreciation will be equally distributed to a full number of years. If, therefore, a period of less than 12 months figures in the series of consecutive periods, the normal full-year amount is proportionately decreased with regard to this period, whereas the balance is depreciated at the end of the total depreciation term.

Article 4

(1) The expenditures made after the start of the period 1952, with the exclusion of those for the investments referred to in article 9, paragraph 1, are classified for purposes of depreciation and according to their nature into the groups mentioned below:

Expenditures for:	*Number of years*
(a) Buildings	15 to 40.
(b) Estates	16 to 25.
(c) Industries	8 to 12.
(d) Marine transportation, docks	10 to 12.
(e) Land transportation, tractors	2 to 5.
(f) Inventory ("Inventaris"), office machines	5 to 10.
(g) Exploitation several years, if the utilitarian duration can be determined accurately	Utilitarian duration.
(h) Exploitation several years, if the utilitarian duration cannot be determined accurately	5 to 10.

(2) Within each group subgroups are formed, if desired, wherein expenditures with equal utilitarian duration are brought together.

(3) In regard of each group or subgroup the duration of the depreciation is determined with due observance of the limits stipulated in the tabular presentation (paragraph 1).

(4) Expenditures of which the nature does not correspond with the definition of one of the groups mentioned are classified into that group or subgroup with regard to which the established depreciation duration approaches most the utilitarian duration of the expenditure.

(5) The depreciation of the classified expenditures takes place in equal parts effective in the period wherein same have been made, during the number of years determined for the group or subgroup concerned.

(6) Deviating from what has been stipulated by the preceding paragraph of this article the depreciation starts effective in a later period if the body prefers to do so as appears from information in the return concerning the year of the expenditure. The start of the depreciation is then determined by a statement to that end by the body in the return concerning any subsequent period.

Explanation:

The regulation of the preceding article contains as it were the transition from the old to the new depreciation system; the subject article 4 embodies the fundamental principles on which the new regulation regarding depreciation of expenditures made after the start of the period 1952 is based, i. e., the classification of expenditures into groups and subgroups according to the utilitarian duration (paragraphs 1 through 4) and the depreciation of these expenditures, once classified, in equal parts effective the period wherein same have been made (paragraph 5). The stipulation of paragraph 6 embodies an exception to that of paragraph 5 in that the start of the depreciation can also be deferred till a later period. The exception has been inserted particularly in view of those cases where the period wherein the expenditure(s) has (have) been made precedes the period wherein the asset concerned is going into production (e. g., expenditures of estate enterprises for a not yet producing plantation).

Regarding the tabular presentation (article 4, paragraph 1) the following is observed. From the existing sequence—groups (a) through (h)—it should not be concluded that expenditures, e. g., for buildings, should always be classified into group (a); classification into group (b) or (c) is also allowed for suchlike expenditures in case of estate and industrial enterprises; the same holds good for expenditures outlined in groups (d) through (h). For the body is free in classifying the expenditure (see article 5).

One-Time Group Classification and Determination of Duration

Article 5

(1) The classification of an expenditure into one of the groups or subgroups as referred to in article 4, as well as determining the duration of the depreciation in accordance with article 3 and article 4, is left to the body.

(2) Once the group classification has been made or the duration has been determined no changes are made in the future.

Deviating Depreciation Schemes

Article 6

At motivated written request from the body a deviating depreciation scheme can be established: (a) For enterprises of which the composition of the assets does not lend itself to the depreciation prescribed in article 3, paragraph 3, or to the classification into the groups mentioned in the tabulation under article 4, and (b) for enterprises or independent enterprise units which have been taken over completely by the body from others.

Perishing or Transfer of Assets

Article 7

(1) The perishing or the transfer of assets to others does not change the amounts and the duration of the depreciation determined in accordance with the preceding regulations, except for what has been stipulated under the following paragraphs of this article.

(2) At the request of the body in the return concerned, the not yet depreciated part of the expenditures is written off in one lump sum at the charge of the period wherein the perishing or the transfer took place. In case an indemnification or compensation is received on account thereof, which is recorded in the books in a later period according to sound commercial usage, the depreciation referred to above is made at the charge of that later period, if the body so requests.

(3) If an indemnification or compensation is received on account of the perishing or the transfer of an asset, regarding which the not yet depreciated part of the expenditures cannot be determined, the depreciation on the expenditures coming under the group or subgroup concerned is increased—at the charge of the period whereunder the indemnification or compensation comes—with an amount equal to that of the indemnification or compensation; the above should be requested by the body in the return concerned. The part of the expenditures not yet depreciated thereafter of the (sub) group concerned is thereupon depreciated in equal parts over the following years still left.

(4) In case the perishing or the transfer is coupled with a cessation of the enterprise, only the regulation contained in the first period of paragraph 2 applies.

Explanation:

In the system of the articles 3 and 4 which unites the expenditures groupwise and prescribes a fixed, annually equal depreciation thereon—whereby the relation with the actual, individual life of each asset in the enterprise acquired with those expenditures has been let loose—the falling out of an individual asset from the enterprise, either by perishing or by transfer to others, could not have any impact on the depreciation without further stipulation. An unlimited carrying through of this rule, however, would yield results—particularly regarding more expensive assets—which are unacceptable from a business as well as from a fiscal point of view.

The picture of the annual fiscal profit calculation would become still less realistic in those cases where a more or less important compensation (insurance benefit, sales price) is received on account of the perishing or transfer. For this compensation is considered a taxable profit from the enterprise over the period wherein this compensation should be recorded in the books according to sound commercial usage.

Accordingly, article 7 creates the possibility for a more true, fiscal calculation of the loss, respectively profit, ensuing from the disappearance of the asset whether or not coupled with the receiving of a compensation on account thereof.

Paragraph 2, namely, empowers the body to lift the expenditures for the asset out of the (sub) group concerned and to deduct the not yet depreciated balance thereof in one lump sum at the charge of the current period, c. q., if a compensation is received and same belongs to the fiscal profit over a later period at the charge of this later period.

Article 3 further grants a facility for cases where a separate determination of the not yet depreciated balance appears to be impossible. Then, the body may declare an extra depreciation to the (sub) group concerned against and equal to the compensation to be received; this means that the fiscal profit of the period concerned is not influenced by the compensation. By the extra depreciation, however, the joint not yet depreciated balance of the expenditures of the (sub) group decreases, which is now afterwards depreciated equally at the charge of the periods still left within the established duration. In other words, the depreciation on the (sub) group is decreased for the following periods. In case of cessation of the enterprise there can of course be no question of continuing the depreciation. Paragraph 4 refers in this case to what has been stipulated in first period of paragraph 2, which means that the balances of the expenditures for the assets transferred or perished are depreciated in one lump sum.

It is noted that "expenditures several years" must be equalized to expenditures for assets for the application of article 7; further, that *partly* perishing (damage) is also included in perishing of an asset.

Impact of Governmental Measures

Article 8

(1) If by virtue of governmental measures taken or intended it is established with reasonable certainty that the body will not be able to continue the carrying on of the enterprise on the existing basis after a certain date, the depreciations are increased insofar as necessary—at the request of the body—with due observance of an equal distribution of the part of the expenditures which is as yet considered for depreciation over the duration till the above-referred-to date.

(2) In this case depreciation also takes place—insofar as necessary—in accordance with what has been established in the first paragraph, of expenditures to which at first an unlimited utilitarian duration was attributed.

Explanation:

This article contains in paragraphs 1 and 2 two exceptions to the general rule of article 5, paragraph 2, according to which regulation no change can be made later in a group classification and determination of duration once chosen. The wide variation-possibilities which offer the groups and subgroups of the tabulation under article 4 leaves the body with enough space to class its expenditures in such a way as to also absorb possible infringements of the utilitarian duration once attributed to expenditures, resulting from the carrying on of the enterprise. However, it is unreasonable to require from the body to also take into account future *governmental measures* in the classifying into groups and in the determining of the duration, by which the continuing of the enterprise on the existing basis would appear to be no longer possible (nationalization, nonextension of concessions, conversion of an unrestricted title into a title with a restricted life, and suchlike). For these cases article 8 creates the possibility to reclassify the expenditures which are eligible thereto. The regulation can be summarized as follows: Expenditures, classified before, can then be depreciated acceleratedly (paragraph 1) whereas expenditures with initially unlimited utilitarian duration are considered for depreciation as yet.

Investments

Article 9

(1) As expenditures for investments referred to in article 4, paragraph 4, of the Ordinance are considered expenditures to be designated by the body which have been made after the start of the period 1950, with the exclusion of: (a) The expenditures for assets taken over; (b) obvious luxury expenditures.

(2) On investments free depreciation can be taken during 3 years at the option of the body effective the

year of expenditures. Therefore the following should be reported: (a) In the return concerning the year of the expenditure, the expenditures, accurately defined, which are considered for free depreciation; (b) in the sub (a) referring to return and in the returns concerning the 2 following years, the individual amounts of the free depreciations and the expenditures to which same pertain.

(3) Regarding investments, made prior to the start of the period 1952, the returns already filed are amplified with due observance of what has been stipulated in the preceding paragraphs sub (a) and (b).

(4) Upon expiration of the 3 years' term referred to in paragraph 2, the part of the investments not yet depreciated by that time is classified and depreciated in accordance with article 4.

(5) Deviating from what has been stipulated in the second paragraph of this article, the depreciation starts effective in a later period if the body so elects, as appears from information on the return concerning the year of expenditure. The start of the depreciation is then determined by a statement to that respect from the body in the return concerning any later period.

Explanation:

In the Explanatory Note to Emergency Law No. 11–1952 (IV under article 4, paragraph 4, of the Ordinance) it has already been outlined on which grounds a special regulation had been established concerning depreciation of expenditures for *new* investments, deviating from the generally applicable one.

This special regulation is embodied in the subject article and includes—to put it shortly—a maintaining of free depreciations regarding all expenditures made after the start of the period 1950, with the exclusion of those defined under (a) and (b) of paragraph 1.

Deliberately, no attempt has been made to give a legal definition of the term "investment," since in the present stage nearly all capital expenditures and all exploitation expenditures for several years can be considered to have a stimulating effect on the increase of the Indonesian productive capacity. As to the exceptions sub (a) and (b) of paragraph 1:

Sub. (a): Expenditures for assets taken over do not result in an extension of the total Indonesian productive continuity. From the words "taken over" it appears that the assets concerned must have been used by others (either individuals or enterprises) prior to the transfer to the body. Consequently, for expenditures made to acquire assets second hand, the investment depreciation can never be claimed.

Sub. (b): Luxury expenditures do not result in increasing prosperity in the present economic situation; the addition obviously intends to restrict adjustments in this respect to those entries the luxury nature of which is incontestably established; thus the investigation into the destination of suchlike expenditures remains within reasonable limits.

The special depreciation regulation concerning investments mentioned in the beginning is embodied in paragraphs 2, 3, and 4. During 3 years, the year of expenditures included, the subject expenditures can be depreciated freely at the option of the body, provided the formal requirements of paragraph 2 sub (a) and (b) and paragraph 3 have been complied with. The part not yet depreciated by that time comes then under the "regulated" depreciation system of article 4 of this decree.

In this connection reference is made to the difference between the free depreciation in accordance with the bookkeeping as introduced by *State Journal* No. 252–1948 and the subject one.

For the fiscal return of the free depreciations according to the above *State Journal*, it was sufficient that the deduction on account thereof did not exceed in total the amount of the expenditures concerned, in other words, a specific attribution was not required; for free depreciation on investments according to this article the attribution has been prescribed explicitly.

This is of interest particularly for investments made prior to the start of the period 1952. Without special attribution only maximum 2 years could still be depreciated according to *State Journal* No. 252–1948; paragraph 2 extends this term with at least 1 year. In this connection the opportunity is offered to the investing body, which has filed a return over the periods 1950 and 1951, by what has been stipulated in paragraph 3, to amplify the return as yet in this respect.

For the explanation to paragraph 5 reference is made to the explanation to the similar stipulation of article 4, paragraph 6.

Intended Investments

Article 10

(1) In the return an estimated amount can be reported to be spent by the body for investment during the next-following period. In this case the amount referred to above is considered to have already been spent during the period to which the return is related.

(2) If it appears at the end of the next-following period that the expenditures concerned actually amounted to more or less than the estimated amount, the actual amount of those expenditures is substituted for the estimated amount; if the depreciation applied thereto at the charge of the preceding period exceeds the actual amount of the expenditures, the excess is considered a profit as meant by article 3 of the Ordinance over the period referred to in the beginning of this paragraph.

(3) At the request of the body it can be stipulated by me (Minister of Finance) that—effective for a period to be designated—an amount, equal to a percentage to be determined by me of the value of the mineral won by the body in Indonesia during any period, will be considered to be destined for expenditures during the next following period for the sake of exploration of such a mineral inside Indonesia. This amount is completely depreciated at the charge of the period first referred to.

(4) With regard to the amount obtained in accordance with the preceding paragraph, what has been stipulated under paragraph 2 is not applied.

(5) In my decree concerned, further regulations are laid down regarding the implementation of what has been stipulated under paragraph 3.

Explanation:

This article contains a special fiscal incentive concerning new investments. By the fiction that the amount destined for later investment is considered to have been spent during the current period, the first depreciation term can be booked at the charge of this period. Paragraph 2 establishes the adjustments possibly required after the actual amount of the investment has definitely been established.

In paragraphs 3, 4, and 5 the incentive referred to above is adapted to the needs of the mining industry, particularly the crude-oil industry, which, during the production process, has always to look for new deposits in replacement of the mineral produced, with ever-increasing costs and risks.

The further regulations to which paragraph 5 refers will, in addition to regulations of an administrative nature (providing the data required to the fiscal authorities), contain among others a further detailing as to the question of which expenditures can be considered "expenditures for the sake of exploration of a mineral" and as to the way of calculating the value of the mineral won.

Regulations of Investment Board

Article 11

If and insofar as a depreciation scheme is established by the Investment Board regarding certain investments, which deviates from what has been stipulated in articles 9 and 10, these articles are applied, changed accordingly.

Participations

Article 12

Depreciation on participations in accordance with what has been stipulated in article 4, paragraph 5, of the Ordinance can, if and insofar as no deduction took place on account thereof at the charge of any previous period, as yet be applied at the charge of the period 1952.

Explanation:

It has appeared that the jurisprudence regarding depreciation on participations which was explicitly laid down in the text of article 4, paragraph 5, by the latest amendment to the Ordinance was far from being generally known.

Therefore, in accordance with the principle of complete writeoff of loss incurred through participations, it has been necessary to incorporate such a stipulation.

Depreciation Statements

Article 13

Statements (see accompanying examples I, II, and III) are drawn up by the authorities in charge of the assessment-settlement depreciation, and are regularly posted and kept in the return-files concerned.

Final Stipulation

Article 14

This decree can be quoted as "Depreciation Decree, Company Tax 1953," and will be published in the *Official Gazette* of the Republic of Indonesia.

In accordance with aforementioned decree:

The Minister of Finance of
The Republic of Indonesia

by

The Director General of State Revenue

(signed)

Statement I. Depreciation of Expenditures Made Prior to the Start of the Period 1952 (Article 3, Depreciation Decree, Company Tax 1953)

[Illustrative of article 13]

A. Calculation of the Depreciation Basis

Name of body..

Statement entry	Amount (in rupiah)			Notes
I. Enterprise value as meant by the Adaptation Decree Company Tax 1953 of assets extant at the start of the period 1950		Rp.........		
Less: Enterprise value of assets with unlimited utilitarian duration		Rp.........		
Total			Rp.........	
II. Total of the expenditures outlined in article 4, paragraph 3, of the Ordinance on the Company Tax 1925 in the period 1950		Rp.........		
Less: Expenditures for assets with unlimited utilitarian duration	Rp.........			
Less: Expenditures for investments (article 9, Depreciation Decree Company Tax 1953)	Rp.........			Depreciation effective immediately (Statement II),
		Rp.........		Rp............; effective
Total			Rp.........	later, Rp.................
III. Total of the expenditures, outlined in article 4, paragraph 3, of the Ordinance on the Company Tax 1925 in the period 1951		Rp.........		
Less: Expenditures for assets with unlimited utilitarian duration	Rp.........			
Less: Expenditures for investments (article 9, Depreciation Decree Company Tax 1953)	Rp.........			Depreciation effective immediately (Statement II),
		Rp.........		Rp............; effective
			Rp.........	later, Rp.................
Total			Rp.........	
IV. Total of I through III			Rp.........	
V. Total of the depreciations at the charge of the period 1950	Rp.........			
Ditto, at the charge of the period 1951	Rp.........			
Total		Rp.........		
Less: Depreciation on expenditures for investments (article 9, Depreciation Decree Comp. Tax 1953):				
On expenditures—1950 at the charge of the period 1950	Rp.........			
On expenditures—1950 at the charge of the period 1951	Rp.........			
On expenditures—1951 at the charge of the period 1951	Rp.........			
		Rp.........		
Depreciation basis			Rp.........	

Statement I. Depreciation of Expenditures Made Prior to the Start of the Period 1952 (Article 3, Depreciation Decree, Company Tax 1953)—Continued

Example:

B. Duration of Depreciation: 10 years

1	2	3	4	5	6		7
Effective period	*New* depreciation basis	Perishing c. q. transfer of assets in the period	Total of the normal depreciations at the charge of the periods as from the period mentioned in column 1 through column 3	Extra depreciation at the charge of the period mentioned in column 3	Annual depreciation effective the period mentioned in column 1 through the period: 1961		Notes
					Part	Amount	
1952	1,000,000				1/10	100,000	
1954	704,000	1953	200,000	[1] 96,000	1/8	88,000	
1957	290,000	1956	264,000	[2] 150,000	1/5	58,000	

[1] Sale in 1953 of assets included in the depreciation basis as of January 1, 1952, in the amount of Rp. 120,000 at a price of Rp. 150,000. Article 7, paragraph 2, Depreciation Decree.

Calculation:

Depreciation basis	120,000
Depreciation 1952 and 1953	24,000
Remaining extra depreciation at the charge of 1953	96,000

[2] Perishing by fire in 1956 of a part of the assets of which the individual amounts, included in the depreciation basis as of January 1, 1952, cannot be traced. However, insurance money amounts to Rp. 150,000. Article 7, paragraph 3, Depreciation Decree.

Calculation:	
Depreciation basis as of January 1, 1954	704,000
Less: Depreciation 1954 through 1956	264,000
Extra depreciation at the charge of 1956 (insurance money)	150,000
Depreciation basis as of January 1, 1957	290,000

Control calculation (100% depreciation)
Depreciation basis as of 1/1/52 1,000,000
Depreciations:
2×100,000=200,000
3×88,000=264,000
5×58,000=290,000
Extra 1953=96,000
Extra 1956=150,000

NOTES. In 1953, respectively 1956 the full sales price-insurance money should be reported as gross profit. (Verbatim, as translated)
The new amount in column 2 is obtained by deducting the sum of the amounts mentioned in the columns 3 and 4 from the previous amount.

Statement II. Depreciation of Expenditures (With Limited Utilitarian Duration) Referred to in Article 9 of the Depreciation Decree, Company Tax 1953 (Depreciation Effective the Year of Expenditure)

[Illustrative of article 13]

Name of body ______________________________

Period	Expenditures (rupiah)	Depreciation, first period (rupiah)	Depreciation, second period (rupiah)	Depreciation, third period (rupiah)	Total depreciations (rupiah)	Rest-value to be transferred to Depreciation Statement C		Notes
						Period	Amount (rupiah)	
1950								
1951								
1952								
1953								

NOTE. Intended investments (article 10, Depreciation Decree, Company Tax 1953) are mentioned separately in pencil under the expenditures of the period, to which the return pertains; the first depreciation hereon is booked (with ink) in the column "depreciation first period." At the end of the next following period the amount written in pencil is substituted by the amount (in ink) actually spent on account thereof. If the last-referred-to amount appears to be lower than that laid down as "depreciation first period," the difference is inserted in red ink in the column "depreciation second period."

Statement III. Depreciation According to Article 4, Depreciation Decree, Company Tax 1953

[Illustrative of article 13]

Name of the body ______________________________

Name of the (sub)group ______________________________

Duration of the depreciation (year) ______________________________

1	2	3		4	5	6	7	8			9
Period	Expenditure c. q. transfer from statement II (rupiah)	Depreciation effective the period mentioned in column 1		Perishing c. q. transfer of assets in the period	Total of the normal depreciations at the charge of the periods as from the period mentioned in columns 1 through 4 (rupiah)	Extra depreciation at the charge of the period mentioned in column 4 (rupiah)	Revised depreciation basis effective the period following the period mentioned in column 4 (rupiah)	Revised depreciation			Notes
		Through period	Annual amount (rupiah)					Effective the period	Through the period	Annual amount (rupiah)	
1952											

Regulations Dealing With Patents

PROVISIONAL REGULATION FOR APPLICATION OF PATENTS [1]

The Minister of Justice herewith announces that in anticipation of a Patents Act provisional application for patents may be submitted to the Ministry of Justice, Djalan Segara 17, Djakarta, beginning November 1, 1953.

The submission of such applications for letters patent will in due course when the Patents Act has been promulgated give the following preferential rights:

(a) Preferential right based on article 4 A–1 of the Treaty of Paris, as last amended in London on June 2, 1914, in the case of a similar application for letters patent in any of the countries to which the treaty applies.

(b) Other preferential rights over applications submitted at a later date.

Publication will take place only after the Patents Act comes into operation.

Applications for patents must meet the following requirements: They must be in the Indonesian language, or in the language of the applicant. In the latter case an Indonesian translation must be sent to the Ministry of Justice within 6 months of the date of registration of the application. The application, containing the applicant's name, address, and nationality, must be signed by the applicant himself. Such conditions also apply if an application is made by proxy.

Applications must be accompanied by:

(a) A description of the invention for which patents are requested, in triplicate;

(b) If necessary, one or more drawings, each in duplicate;

(c) A power of attorney if the application is made by a proxy;

(d) The appointment of a proxy domiciled in Indonesia;

(e) The prescribed fees;

(f) Statement whether patents have already been applied for in other countries (in respect of the application in question), and if so whether patents have been granted.

The description of the invention must include:

(a) Name of the invention and a brief explanation what the invention is;

(b) A brief explanation of the nature and purposes of the invention;

(c) A concise explanation which must be sufficiently comprehensible to an expert about the way the invention is used, insofar as necessary illustrated with one or more drawings;

(d) Conclusions showing that the invention is in fact a new one, and really does differ from what is already known.

The description must be made on strong white paper of the following measurements, in centimeters: Length, 29 to 34; width, 20 to 22. Only one side of the paper may be used and each (written) page must be numbered.

At least one copy of the description must be written or printed in jet black ink. No carbon copy or other copy will do.

[1] Announcement of the Ministry of Justice, 1953.

Of the two above-mentioned drawings, one must be made on strong, smooth, white drawing paper and the other on good-quality transparent tracing linen or good-quality tracing paper. The size of the drawings may be once or twice that of the description. The drawings may not contain more than is necessary to explain the invention. The lines and lettering may be in one color only; that of the tracing may be jet black only.

The applicant or his proxy must sign each page at the right-hand bottom corner. The proxy must add the name of the applicant. The pages must be numbered at the top right-hand side.

Pending a definite scale of charges, the following provisional fees apply: Application fee, 200 rupiah; fee for certificate of priority, 20 rupiah, plus clerical charge.

If more than one copy of the certificate of priority is required, additional copies may be obtained at 10 rupiah each.

Djakarta, August 12, 1953.

The Ministry of Justice
(signed)

DRAFT PATENT LAW

The following is a summary of a report which appeared in the Indonesian press of the draft law on patents approved by the Indonesian Cabinet in January 1955.

The draft law consists of 60 articles. According to the Ministry of Justice the law, the drafting of which was started in 1950, is divided into seven sections, as follows: Section I defines patents and lists the qualifications necessary for obtaining a patent; section II defines patentable inventions; section III deals with the exclusiveness of patented inventions; section IV sets forth the procedure for obtaining a patent; section V lists the costs to be incurred in obtaining a patent; section VI deals with patent rights, i. e., the rights of patent holders, patents as property, protection of patents, etc.; section VII deals with the expiration and cancellation of patent rights.

The granting of patent rights is, in broad outline, as follows: An applicant upon submission of an application to the Patent Office for a patent on an invention is granted exclusive rights to his patent according to provisions contained in other articles of the law. The first applicant for a patent is presumed to be the inventor, and therefore the rightful claimant to the patent, except in cases where the application is for the use of models, drawings, etc., invented by others without the permission of the inventors. Anyone residing in a foreign country party to the Paris Convention of 1883 who has applied for a patent on an invention, and who submits an application for the same invention in Indonesia, is considered (if his application is accepted) to have made his application on the date he first filed it in the foreign country.

Claims for priority rights will be considered only if the application for the patent is submitted to the Patent Office within 12 months from the date the patent appli-

cation was filed in the foreign country, and when all the required documents have been submitted to the Patent Office within the time fixed by that office. Anyone exhibiting an invention at a fair in Indonesia, or any other country which is a party to the international patent agreement (Paris Convention 1883), and who submits an application for a patent within 6 months from the opening date of the fair, is considered to have submitted his application on the date his invention was exhibited.

If an employee while in the service of an employer invents something which from the nature of his work is part of his regular job, the employer may be granted a patent for the invention. The employee is entitled to have his name cited on the patent, and also to a reasonable share from the profits gained from the patent. If an invention is the result of an agreed cooperation, all the participants may be granted a joint patent on the invention.

Section II (patentable inventions) contains, in broad outline, the following regulations: An invention on industrial production or on a new method of production is patentable if it affects production of an industrial item, or a product other than industrial, if the new method applies to production and conservation of agricultural products or refers to the problems of utilization of raw materials. If an invention relates to a new raw material, it is only patentable if, along with the submission of the application for its patent, the applicant also submits a request for the exclusive right for at least one method of production of that raw material; and if a patent is applied for or is granted for a raw material, a new method of production for the raw material is only patentable if it proves that the procedure is a complicated (not an easy) one for an expert.

Section III contains regulations which protect the interests of Indonesia. Among other things it rules: Inventions are unpatentable when they relate to chemicals prepared by simple methods, to essential foodstuffs requiring simple preparation, to natural resources, and to work procedures (methods) applicable only to agriculture in the raising of a new variety. Inventions and work methods are also unpatentable if they and their aims are in opposition to public order and good morals.

Section IV establishes that if an invention is to be of importance to the defense of the country the inventor is prohibited, within 6 months after the submission of the application for its patent, to apply for the same patent in foreign countries, unless the application in Indonesia can be considered a "premier depot." When an invention has been declared important to the country's defense, the patent applicant and patent official concerned are obliged to keep secret anything in connection with this application, including the prohibition to apply for patent for that invention abroad and to deliver any rights obtained to any party other than the state.

The preamble of the bill says *inter alia* that it was prepared in the light of the international patent agreements in force, including the Paris Convention of 1883.

Bibliography

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